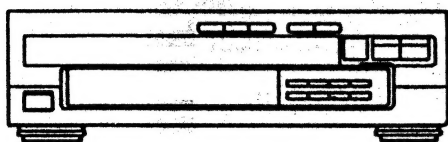


# aiwa



## DX-Z9100M



COMPACT DISC PLAYER

• BASIC CD MECHANISM KSM-0101A/M

• TYPE Y

DX-Z9100M is the Compact Disc Player which is connected to below systems.

• Z-D3100M • Z-D7100M • Z-D8100M • Z-D9100M

- Only the modifications are stated in this manual.  
Use this manual with DX-Z950M Service Manual  
(S/M Code No.0106).

MANUAL  
SERVICE

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

**WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.**



- **Caution:** Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- **Advarsel:** Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

Laitteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitu-  
lla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylit-  
täville näkymättömälle lasersäteilylle.

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure to ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove the solder shown in the right figure.

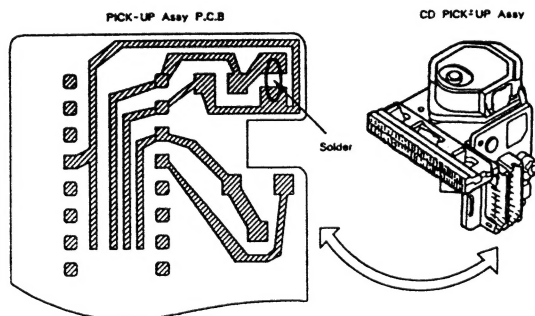
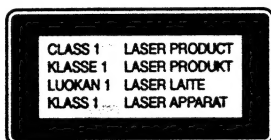
<b>Disc</b>	Compact disc
<b>Scanning method</b>	Non-contact optical scanner (semiconductor laser application)
<b>Laser</b>	Semiconductor laser ( $\lambda = 750\text{--}800\text{ nm}$ )
<b>Rotation speed</b>	Approx. 500 rpm–200 rpm (CLV)
<b>Error correction</b>	Cross Interleave, Reed Solomon code
<b>No. of channels</b>	2 channels
<b>D-A conversion</b>	1-bit DAC

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

-L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.  
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



Wow/Flutter	Unmeasurable
Signal to noise ratio	92 dB (1 kHz, 0 dB)
Harmonic distortion	0.01% (1 kHz, 0 dB)
Low pass filter	8 times digital filter + active filter
Power consumption	15 W
Dimensions (WxHxD)	360 x 98.5 x 308 mm (14 1/8" x 4 x 12 1/8" in)
Weight	3.8 kg (8.4 lb)

- Design and specifications are subject to change without notice.

DESCRIPTIONで判断できない物は“REFERENCE NAME LIST”を参照してください。  
If can't understand for Description please kindly refer to “REFERENCE NAME LIST”.

REF. NO	PART NO.	カソリ NO.	DESCRIPTION
1	84-VW1-901-010	IB, Y	

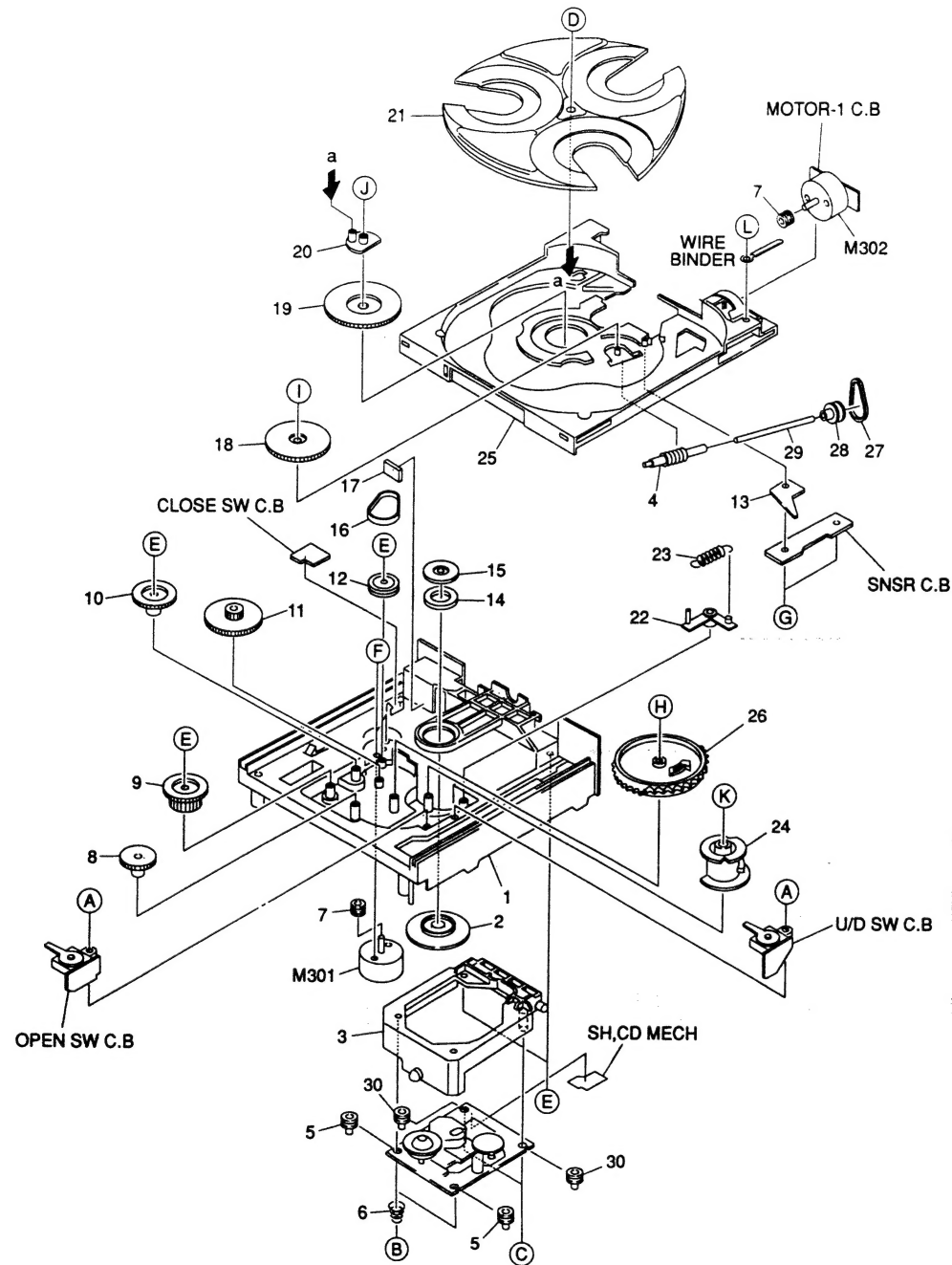
## ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は“REFERENCE NAME LIST”を参照してください。  
If can't understand for Description please kindly refer to “REFERENCE NAME LIST”.

REF. NO	PART NO.	品名 NO.	DESCRIPTION	REF. NO	PART NO.	品名 NO.	DESCRIPTION
IC				SW714	87-036-215-089	SW, TACT	EVO21404M
				SW715	87-036-215-089	SW, TACT	EVO21404M
	82-WM1-601-110	IC, CXP50120-159Q		SW716	87-036-215-089	SW, TACT	EVO21404M
				SW717	87-036-215-089	SW, TACT	EVO21404M
				SW718	87-036-215-089	SW, TACT	EVO21404M
MAIN C.B				SW719	87-036-215-089	SW, TACT	EVO21404M
C527	87-018-209-019	CAP, TC-U 0.1-50F		TACT-2 C.B			
TACT-1 C.B				SW705	87-036-215-089	SW, TACT	EVO21404M
SW701	87-036-215-089	SW, TACT	EVO21404M	MOTOR-2 C.B			
SW702	87-036-215-089	SW, TACT	EVO21404M				
SW706	87-036-215-089	SW, TACT	EVO21404M	SW101	91-572-086-110	LEAF SW	
SW707	87-036-215-089	SW, TACT	EVO21404M				
SW708	87-036-215-089	SW, TACT	EVO21404M				
SW709	87-036-215-089	SW, TACT	EVO21404M				
SW710	87-036-215-089	SW, TACT	EVO21404M				
SW711	87-036-215-089	SW, TACT	EVO21404M				
SW712	87-036-215-089	SW, TACT	EVO21404M				
SW713	87-036-215-089	SW, TACT	EVO21404M				

## MECHANICAL PARTS LIST

REF. NO	PART NO.	ナリ NO.	DESCRIPTION
1-1~1-6	09-057-206-010		CAB1. FRONT ASSY
1-5	84-VMI-001-019		CAB. FR
1-17	84-VMI-003-019		PANEL, TRAY
1-18	84-VMI-002-019		PANEL, REAR YBN (Y)
1-18	84-VMI-005-019		PANEL, REAR YJBN (YJ)
1-21	82-VMI-002-019		CAB. STEEL



DESCRIPTIONで判断できない物は"REFERENCE NAME LIST"を参照してください。  
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	カナリ NO.	DESCRIPTION	REF. NO	PART NO.	カナリ NO.	DESCRIPTION
2-1	81-ZG1-243-219		CHAS. MECH NO2	2-26	81-ZG1-015-010		GEAR, TRAY CAM BLU
2-2	81-ZG1-228-11K		HLDR, MAGNET	2-27	81-ZG1-233-110		BELT, TT
2-3	81-ZG1-253-310		HLDR, MECH MK2	2-28	81-ZG1-236-010		PULLEY, TT MO
2-4	81-ZG1-276-110		WORM GEAR, TT NO2	2-29	81-ZG1-280-010		SHAFT, WORM S
2-5	81-ZG1-230-010		G-CUSH, MECH	2-30	80-CD3-214-010		CUSH CD A
2-6	81-ZG1-231-110		SPR-C, MECH	2-A	81-653-215-010		SPECIAL SCREW VT2
2-7	81-ZG1-212-010		PULLEY, LOAD MO	2-B	81-ZG1-254-010		S-SCREW, MECH HLDR
2-8	81-ZG1-250-010		GEAR, TRAY RELAY MK2	2-C	81-ZG1-271-010		S-SCREW, MECH REAR
2-9	81-ZG1-019-010		GEAR, TRAY B YEL	2-D	81-ZG1-239-010		S-SCREW, TT
2-10	81-ZG1-018-010		GEAR, TRAY A YEL	2-E	87-067-945-110		VFT2+3-12(F10)
2-11	81-ZG1-017-010		GEAR, RELAY RED	2-F	87-251-071-410		U+2, 6-4
2-12	81-ZG1-014-010		PULLEY, RELAY YEL	2-G	87-067-579-010		BVT2+3-8W/O SLOT
2-13	81-ZG1-240-010		SPR-P, WORM	2-H	81-ZG1-264-010		S-SCREW, CAM
2-14	87-036-326-010		MAGNET, CLAMPER 93	2-I	87-761-095-410		VFT2+3-8
2-15	81-ZG1-255-119		PLATE, MAGNET MK2	2-J	87-078-029-010		VFT2+3-13(F8)
2-16	81-ZG1-232-010		BELT, TRAY	2-K	87-078-061-010		VFT2+3-200IA10, GLD
2-17	81-ZG1-238-110		CUSH, TRAY IN	2-L	87-721-096-419		QT2+3-10
2-18	81-ZG1-222-010		WORM WHEEL, TT				
2-19	81-ZG1-202-010		GEAR, MAIN				
2-20	81-ZG1-252-010		LEVER, TT MK2				
2-21	81-ZG1-010-210		TURNTABLE NO3				
2-22	81-ZG1-020-010		PLATE, CAM BGE				
2-23	81-ZG1-262-010		SPR-E, CAM S				
2-24	81-ZG1-016-010		GEAR, MECH CAM BGE				
2-25	81-ZG1-011-310		TRAY MK2				

# REFERENCE NAME LIST ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP. CHIP
C-CAP TN	CAP. CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES. CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP. CERA-SOL
CAP, E	CAP. ELECT
CAP, M/F	CAP. FILM
CAP, TC	CAP. CERA-SOL
CAP, TC-U	CAP. CERA-SOL SS
CAP, TN	CAP. TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP. ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES. FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP. PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES. NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC, CAP	CAP. CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMMER	CAP. TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER
サーボレギュレーター	SERGESUPPRESSOR
セラコン	CAP. CERA

# MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESIVE	SHEET ADHESIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLD	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOADING MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL
シャフト	ARM, SHAFT
ガイド	GUIDE, SHAFT
ストラップ	STRAP
ヒンジ	S-SCREW
ヒンジ	HINGE
ヒンジ	S-SCREW
ヒンジ	SCREW, SERRATED

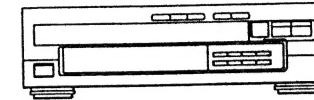
aiwa

# SERVICE MANUAL

• BASIC CD MECHANISM: KSM - 2101ABM

S/M Code No.0106 DATE OF ISSUE 8/1992 - T

# DX-Z950M



COMPACT DISC PLAYER

• TYPE, Y

◆ DX-Z950M are Compact Disc Player

connected to below systems.

- XS-Z1000M
- XS-Z860M
- CX-Z1000M
- XS-Z750M
- XS-Z900M
- CX-Z750M
- CX-Z900M

# SPECIFICATIONS

Disc	Compact disc
Scanning method	Non-contact optical scanner (semiconductor laser application)
Laser	Semiconductor laser ( $\lambda = 750-800 \text{ nm}$ )
Rotation speed	Approx. 500 rpm - 200 rpm (CLV)
Error correction	Cross Interleave, Reed Solomon code
No. of channels	2 channels
D-A conversion	1-bit DAC
Wow/Flutter	Unmeasurable
Signal to noise ratio	92 dB (1 kHz, 0 dB)
Harmonic distortion	0.01% (1 kHz, 0 dB)
Low pass filter	8 times digital filter + active filter
Power consumption	15 W
Dimensions (W×H×D)	360 × 98.5 × 308 mm (14 1/4 × 4 × 12 1/4 in)
Weight	3.8 kg (8.4 lb)

• Design and specifications are subject to change without notice.

サービス技術ニュース	
番号	連絡内容
G - -	
G - -	
G - -	

アイワ株式会社  
AIWA CO., LTD.

920074, 750038

Tokyo Japan

AIWA CO., LTD.

Tokyo Japan



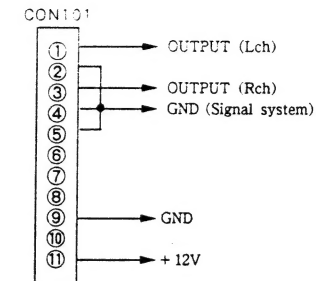
## CAUTIONS WHEN SERVICING

Model DX-Z950M do not have a power circuit. These equipment use a 11-pin flat cable to receive the power supply and to output and input signals.

When servicing these equipment, connect them to the devices as shown in Table 1. If the equipment in Table 1 is not available, follow the procedure below.

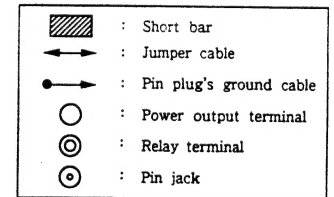
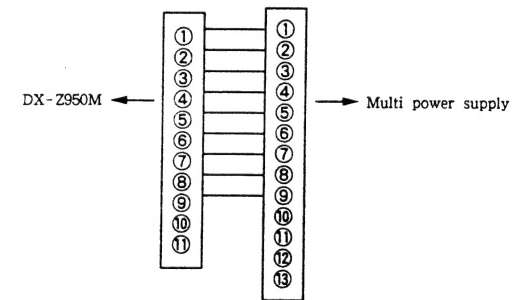
[Repairing a single machine]

① Supply the following voltage to each terminal from the external power supply.

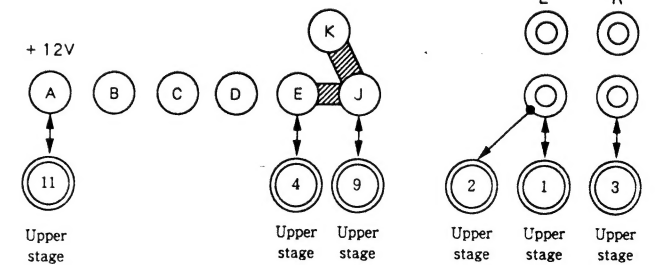


② Multi Power Connection diagram (LPS-9088)

Connect the multi-conversion harness for F550 to the J1 connector.



Connect diagram of multi-conversion harness.



## DISSASSEMBLY INSTRUCTIONS

1. "Cabinet, Steel" Removal (See Figure-1)
  - 1) Remove 5 screws (A) and remove "Cabinet, Steel".
2. "Cabinet, Front" Removal (See Figure-1)
  - 1) Remove 5 screws (B) x 4, (C) x 1 and remove the "Cabinet, Front".
3. "Panel, Rear" Removal (See Figure-1)
  - 1) Remove 4 screws (D) and remove the "Panel, Rear".

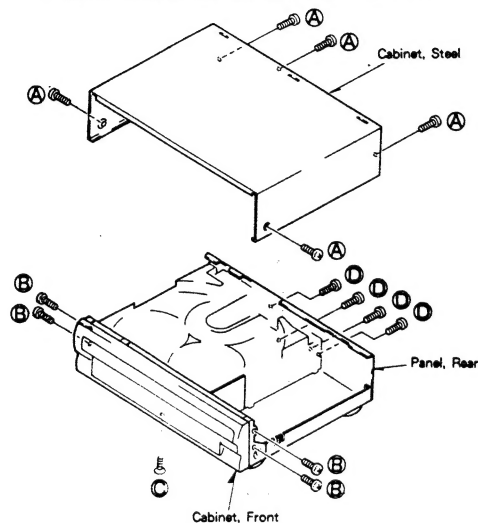


Fig - 1

4. "Mechanism ASSY" Removal (See Figure-2)
  - 1) Remove 4 screws (A) and remove the "Mechanism ASSY".

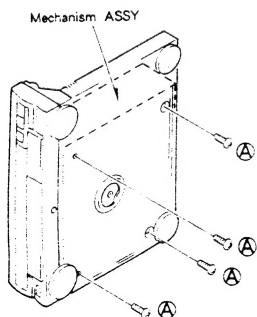


Fig - 2

5. "Main Circuit Board" Removal (See Figure - 3)
  - 1) Remove 6 hooks unsolder the soldered points and raise the "Main Circuit Board".
  - 2) Remove 8 connectors and remove the "Main Circuit Board" in the direction of the arrow.

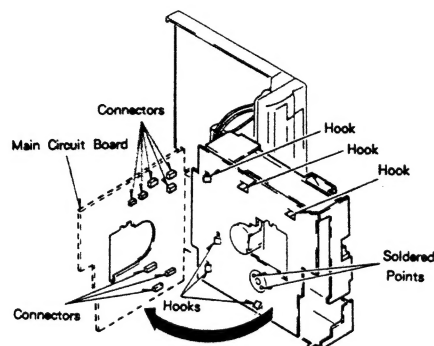


Fig - 3

6. "Tray" Removal (See Figure - 4)
  - 1) Open the "Tray".
    - ★ To open manually  
Turn gear in the direction of arrow ① with your fingers.
    - ★ To open automatically  
Connect the power supply to the loading motor and open the "Tray".
  - 2) While pushing the hook in the direction of the arrow ② as shown in the figure, remove the "Tray" in the direction of arrow ③.
  - 3) Remove screw (A) and remove the "Turntable".

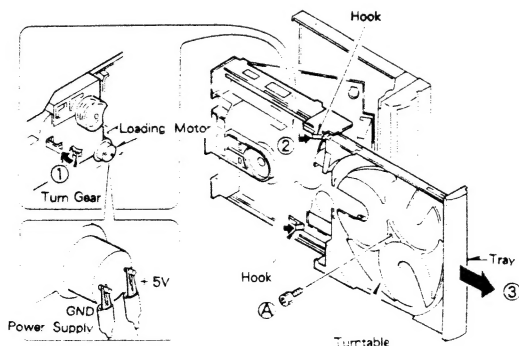


Fig - 4

## PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

### WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion.  
Undgå udsættelse for stråling.

### VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainituilla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

### WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstråling, som överskrider gränsen för laserklass 1.

### CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

### ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

This Compact Disc player is classified as a CLASS 1 LASER product.  
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

CLASS 1  
LASER PRODUCT

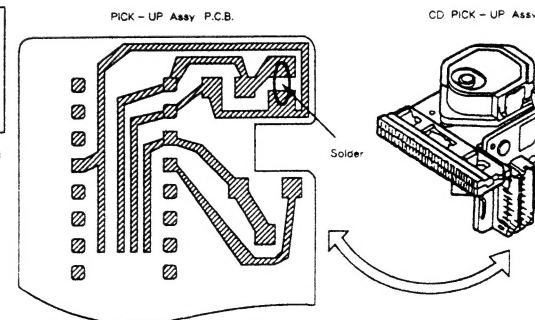
LUOKAN 1  
LASERLAITE

KLASS 1  
LASER APPARAT

## Precaution to replace Optical block (KSS - 210A)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove solder shown in the right figure.



## ELECTRICAL MAIN PARTS LIST

REF. NO. PART NO. DESCRIPTION

===IC===

87-002-639-010 IC, 8A6296FP  
 87-001-184-010 IC, CXA1081S  
 87-001-400-010 IC, CXA1082S  
 87-001-944-010 IC, CXD1167Q  
 81-VM1-636-010 IC, CXP50116-392Q  
 87-002-211-010 IC, GPIF32T (DIGITAL OUT)  
 87-002-394-010 IC, LB1641  
 87-002-348-010 IC, NJM4580D  
 87-020-881-019 IC, NJM78L05A  
 87-002-984-010 IC, TC92378N

===TRANSISTOR===

89-112-964-019 TRANSISTOR, 2SA1296Y  
 89-113-187-019 TRANSISTOR, 2SA1318TU  
 89-213-302-019 TRANSISTOR, 2BS1330Q  
 89-213-702-019 TRANSISTOR, 2SB1370E  
 89-318-155-019 TRANSISTOR, 2SC18156R  
 89-318-154-019 TRANSISTOR, 2SC1815Y  
 89-325-002-319 TRANSISTOR, 2SC2500  
 89-406-555-019 TRANSISTOR, 2SD655E  
 87-026-572-019 TRANSISTOR, DTA114TS  
 87-026-486-019 TRANSISTOR, DTA144TS  
 87-026-291-019 TRANSISTOR, DTC124XS  
 87-026-218-019 TRANSISTOR, DTC144ES

===DIODE===

87-020-870-019 DIODE, 1S1585  
 87-020-465-019 DIODE, 1SS133  
 87-002-608-019 DIODE, DSF10TC  
 87-002-850-019 DIODE, ZENER HZ482  
 87-027-393-019 DIODE, ZENER HZ4C2  
 87-027-652-019 DIODE, ZENER HZ9A1L  
 87-027-402-019 DIODE, ZENER HZ24-2L

===MAIN CIRCUIT BOARD SECTION===

C101 ★87-010-405-019 CAP, ELECT 10-50 SME  
 C102 ★87-010-405-019 CAP, ELECT 10-50 SME  
 C103 ★87-018-127-019 CAP, CERA-SOL SS 470P-50 B  
 C104 ★87-018-127-019 CAP, CERA-SOL SS 470P-50 B  
 C107 ★87-018-113-019 CAP, CERA-SOL SS 33P-50 SL  
 C108 ★87-018-113-019 CAP, CERA-SOL SS 33P-50 SL  
 C109 ★87-018-117-019 CAP, CERA-SOL SS 68P-50 SL  
 C110 ★87-018-117-019 CAP, CERA-SOL SS 68P-50 SL  
 C111 ★87-018-113-019 CAP, CERA-SOL SS 33P-50 SL  
 C112 ★87-018-113-019 CAP, CERA-SOL SS 33P-50 SL  
 C113 ★87-010-404-019 CAP, ELECT 4.7-50 SME  
 C114 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C115 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C116 ★87-010-260-019 CAP, ELECT 47-25 SME  
 C117 ★87-010-263-019 CAP, ELECT 100-10  
 C118 ★87-010-263-019 CAP, ELECT 100-10  
 C119 ★87-018-113-019 CAP, CERA-SOL SS 33P-50 SL  
 C120 ★87-018-113-019 CAP, CERA-SOL SS 33P-50 SL  
 C121 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C122 ★87-010-263-019 CAP, ELECT 100-10  
 C130 ★87-018-209-019 CAP, CERA-SOL SS 0.1-50 F  
 C201 ★87-018-132-019 CAP, CERA-SOL SS 2200P-16 X  
 C202 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C203 ★87-018-202-019 CAP, CERA-SOL SS 6800P-16 X  
 C207 ★87-010-405-019 CAP, ELECT 10-50 SME  
 C211 ★87-018-199-019 CAP, CERA-SOL SS 3300P-16 X  
 C212 ★87-010-403-019 CAP, ELECT 3.3-50 SME  
 C213 ★87-010-382-019 CAP, ELECT 22-25 SME  
 C216 ★87-010-374-019 CAP, ELECT 47-10  
 C220 ★87-018-133-019 CAP, CERA-SOL SS 4700P-16 X  
 C221 ★87-010-401-019 CAP, ELECT 1-50 SME  
 C222 ★87-010-401-019 CAP, ELECT 1-50 SME

REF. NO. PART NO. DESCRIPTION

C230 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C231 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C302 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C303 ★87-010-400-019 CAP, ELECT 0.47-50 SME  
 C305 ★87-018-132-019 CAP, CERA-SOL SS 2200P-16 X  
 C307 ★87-010-248-019 CAP, ELECT 220-10  
 C308 ★87-010-374-019 CAP, ELECT 47-10  
 C309 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C310 ★87-010-374-019 CAP, ELECT 47-10  
 C401 ★87-010-263-019 CAP, ELECT 100-10  
 C402 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C404 ★87-010-400-019 CAP, ELECT 0.47-50 SME  
 C405 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C406 ★87-018-131-019 CAP, CERA-SOL SS 1000P-50 B  
 C501 ★87-018-113-019 CAP, ELECT 4700-16 VR  
 C503 ★87-018-209-019 CAP, CERA-SOL SS 0.1-50 F  
 C504 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C505 ★87-010-404-019 CAP, ELECT 4.7-50 SME  
 C506 ★87-010-374-019 CAP, ELECT 47-10  
 C512 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C513 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C516 ★87-010-260-019 CAP, ELECT 47-25 SME  
 C522 ★87-010-406-019 CAP, ELECT 22-50 SME  
 C526 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C527 ★87-018-200-019 CAP, CERA-SOL SS 3900P-16 X  
 C528 ★87-010-263-019 CAP, ELECT 100-10  
 C529 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C531 ★87-010-221-019 CAP, ELECT 470-10  
 C533 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C552 ★87-018-209-019 CAP, CERA-SOL SS 0.1-50 F  
 C556 ★87-016-113-010 CAP, ELECT 4700-16 VR  
 C557 ★87-010-381-019 CAP, ELECT 330-16 SME  
 C559 ★87-018-196-019 CAP, CERA-SOL SS 1500P-11  
 C801 ★87-010-263-019 CAP, ELECT 100-10  
 C802 ★87-010-370-019 CAP, ELECT 330-6.3 SME  
 C803 ★87-018-115-019 CAP, CERA-SOL SS 47P-50 SL  
 C804 ★87-018-115-019 CAP, CERA-SOL SS 47P-50 SL  
 C805 ★87-018-115-019 CAP, CERA-SOL SS 47P-50 SL  
 C806 ★87-018-115-019 CAP, CERA-SOL SS 47P SL  
 C807 ★87-018-128-019 CAP, CERA-SOL SS 560P-50 B  
 C808 ★87-018-134-019 CAP, CERA-SOL SS 0.01-16 Y  
 C809 ★87-018-128-019 CAP, CERA-SOL SS 560P-50 B  
 C825 ★87-010-404-019 CAP, ELECT 4.7-50 SME  
 C990 ★87-018-131-019 CAP, CERA-SOL SS 1000P-50 B  
 C991 ★87-018-131-019 CAP, CERA-SOL SS 1000P-50 B  
 EM102 ★87-008-372-010 FILTER, EMI BL 01RNI  
 EM103 ★87-008-372-010 FILTER, EMI BL 01RNI  
 EM104 ★87-008-372-010 FILTER, EMI BL 01RNI  
 F101 ★87-008-394-019 FILTER, CERAMIC CST 4.19MGW  
 FC101 ★82-VM1-616-010 FLAT CABLE 5-2.0-175  
 FL101 ★81-VM1-637-010 FL 78T-1716K (DISPLAY)  
 J104 87-002-211-010 IC, GPIF32T (DIGITAL OUT)  
 L301 ★87-003-147-019 COIL, 22UH  
 L401 ★87-003-147-019 COIL, 22UH  
 L502 ★87-007-311-010 COIL, OSC DOCON V  
 L801 ★87-003-147-019 COIL, 22UH  
 M102 87-045-305-010 MOTOR, RF-500TB (LOADING MOTOR)  
 R410 ★87-025-407-019 RES, MF 100K-1/8W  
 R412 ★87-025-407-019 RES, MF 100K-1/8W  
 ΔRS07 ★87-029-129-090 RES, FUSE 3.3-1/4W  
 ΔRS22 ★87-029-129-090 RES, FUSE 3.3-1/4W  
 SFR101 ★87-024-169-010 SFR, 2.2K DIA6V  
 SFR103 ★87-024-173-010 SFR, 22K DIA6V  
 SFR301 ★87-024-173-010 SFR, 22K DIA6V  
 SFR302 ★87-024-173-010 SFR, 22K DIA6V  
 X102 ★87-030-270-019 XTAL RESONATOR 16.9344MHZ

REF. NO. PART NO. DESCRIPTION

===TACT-1 CIRCUIT BOARD SECTION===

FC701 ★82-VM1-615-010 FLAT CABLE, 3-2.0-160  
 LED701 89-VM5-606-010 LED, SLH-38MC 70F-90 (◀PLAY/PAUSE;  
 LED702 87-002-816-010 LED, SEL 241SE GRN (▶▶)  
 LED703 89-VM5-606-010 LED, SLH-38MC 70F-90 (■STOP/CLEAR;  
 LED704 87-002-816-010 LED, SEL 241SE GRN (▶▶)  
 SW701 87-036-259-018 SW, TACT SKH1/BB (■STOP/CLEAR)  
 SW702 87-036-259-018 SW, TACT SKH1/BB (◀PLAY/PAUSE)  
 SW703 87-036-270-019 SW, TACT 2SK0CAA (▶▶)  
 SW704 87-036-270-019 SW, TACT 2SK0CAA (▶▶)  
 SW706 87-036-259-018 SW, TACT 2KHVB8 (RANDOM)  
 SW707 87-036-259-018 SW, TACT 2KHVB8 (PROGRAM)  
 SW708 87-036-259-018 SW, TACT 2KHVB8 (REPEAT)  
 SW709 87-036-259-018 SW, TACT 2KHVB8 (TIMER PROGRAM)  
 SW710 87-036-259-018 SW, TACT 2KHVB8 (DELITE)  
 SW711 87-036-259-018 SW, TACT 2KHVB8 (DISPLAY)  
 SW712 87-036-259-018 SW, TACT 2KHVB8 (EDIT-A1)  
 SW713 87-036-259-018 SW, TACT 2KHVB8 (EDIT-CONT)  
 SW714 87-036-259-018 SW, TACT 2KHVB8 (1)  
 SW715 87-036-259-018 SW, TACT 2KHVB8 (▲OPEN/CLOSE)  
 SW716 87-036-259-018 SW, TACT 2KHVB8 (DISK CHANGE)  
 SW717 87-036-259-018 SW, TACT 2KHVB8 (DISK CONT, SKIP)  
 SW718 87-036-259-018 SW, TACT 2KHVB8 (3)  
 SW719 87-036-259-018 SW, TACT 2KHVB8 (2)

===TACT-2 CIRCUIT BOARD SECTION===

SW705 87-036-259-018 SW, TACT 2KHVB8 (POWER)

===PHOTO CIRCUIT BOARD SECTION===

PH601 87-026-573-010 P-SENSOR, GP1553V

===MOTOR-1 CIRCUIT BOARD SECTION===

M101 87-045-305-010 MOTOR, RF-500TB (TURN TABLE MOTOR)

===MOTOR-2 CIRCUIT BOARD SECTION===

M103 9X-262-513-210 MOTOR GEAR ASSY (SLED)  
 M104 9X-262-513-310 MOTOR ASSY (W/CHASSIS, T. T)  
 (SPINDLE)  
 SW101 91-572-085-110 LEAF SW (INSIDE LIMIT)

===SWITCH-1 CIRCUIT BOARD SECTION===

SW603 87-036-109-010 PUSH, SW (CLOSE SW)

===SWITCH-2 CIRCUIT BOARD SECTION===

SW601 87-036-271-010 LEVER, SW (UP/DOWN SW)

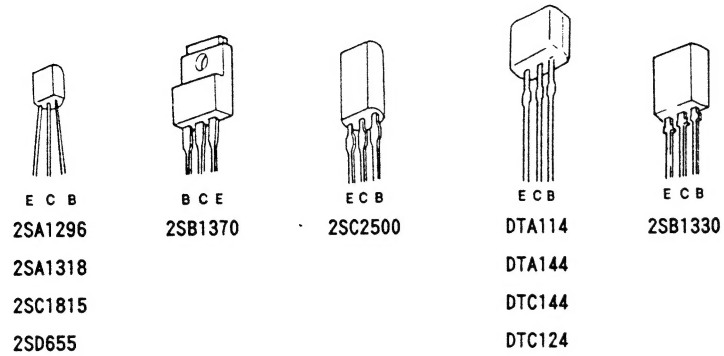
===SWITCH-3 CIRCUIT BOARD SECTION===

SW602 87-036-271-010 LEVER, SW (OPEN SW)

===MISCELLANEOUS===

98-848-127-110 OPTICAL PICK UP KSS-210A  
 ★89-VT5-202-010 BUSHING, CORD  
 CON101 ★89-VX5-618-010 FLAT CABLE 11P FG

TRANSISTOR ILLUSTRATION

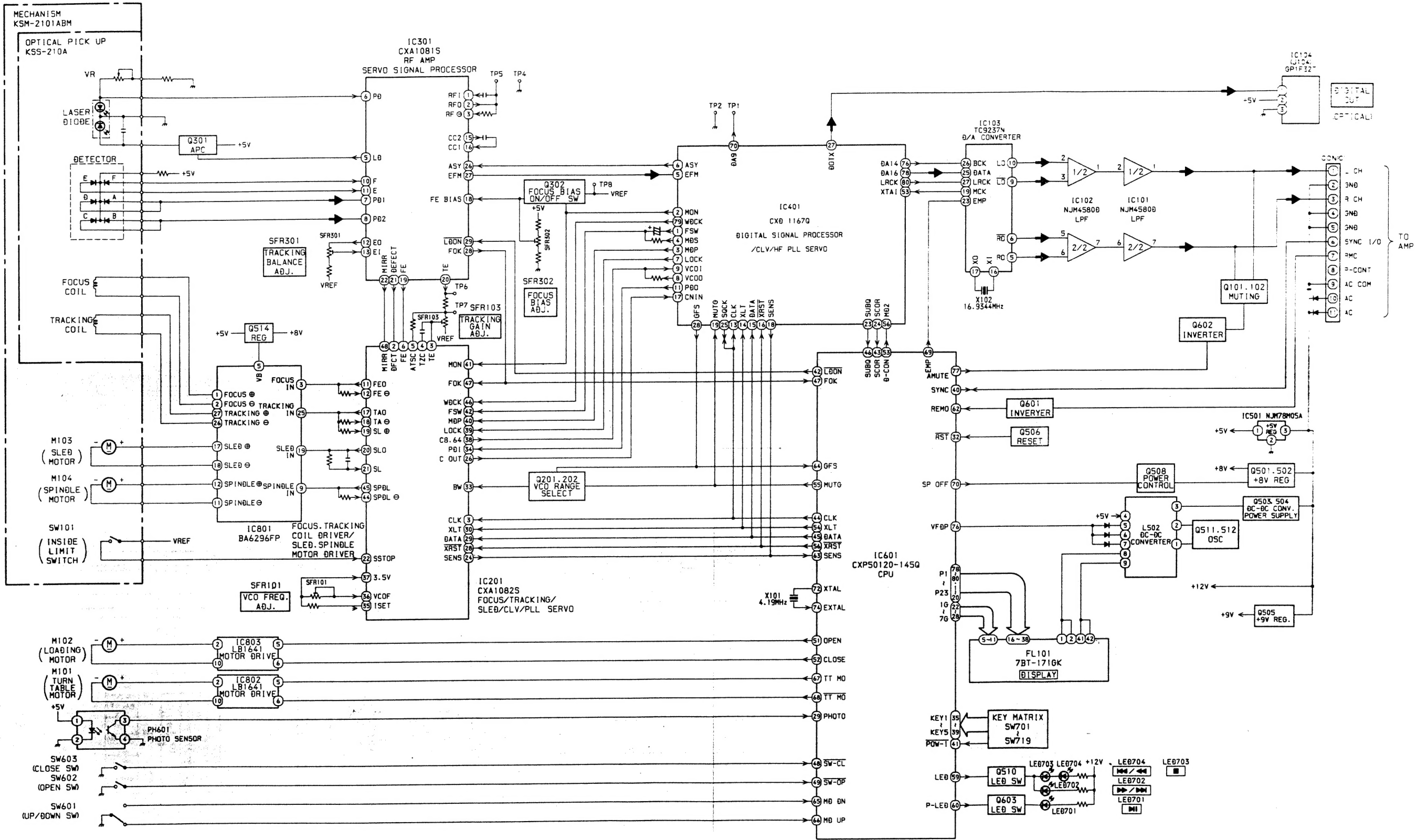


See the DX - N350M for the IC description below		
	DX - N350M	DX - Z950M
①	IC, CXP50120 - 145Q	IC, CXP50120 - 145Q
②	IC, CXD1167Q	IC, CXD1167Q
③	IC, CXA1081S	IC, CXA1081S
④	IC, CXA1082S	IC, CXA1082S
⑤	IC, TC9237N	IC, TC9237N

■ ACCESSORIES/PACKAGE LIST

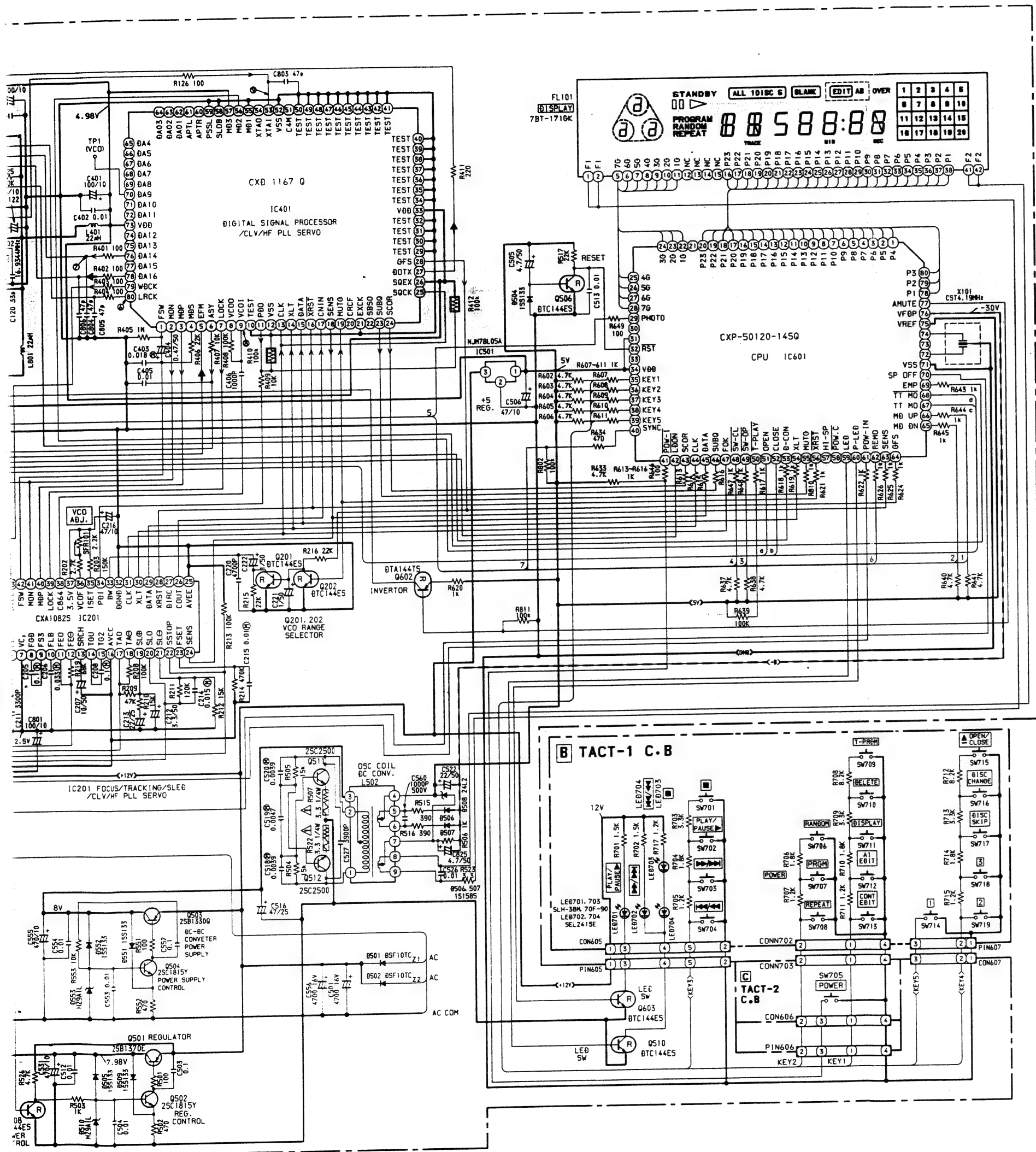
PART NO.	REF.	PART NO.	DESCRIPTION	COMMON	Q.TY
CHANGED TO	NO.			MODEL	
	1	★82-VM1-902-010	INSTRUCTION BOOKLET EX	※	1
	2	★87-064-129-010	HOLDER, F - CABLE 682		1

BLOCK DIAGRAM









# WAVE FORM

①

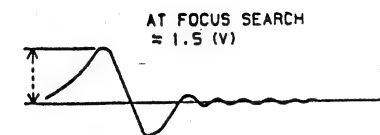


VP-P SHOULD BE APPROX. 1.4X,  
WHEN PLAYING TRACK-2 OF YE05-18.

②



③

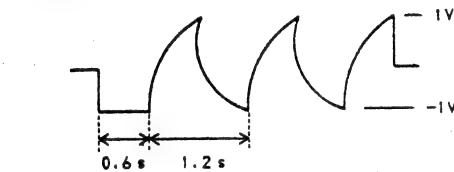


④

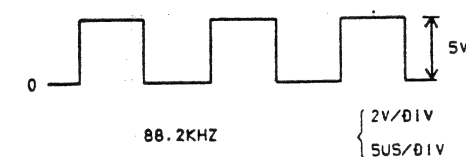


⑤

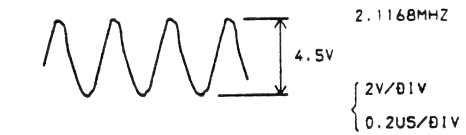
(WHEN VDD ON WITHOUT DISC AND TRAY IS CLOSED.)



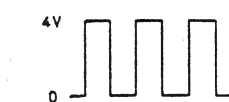
⑥



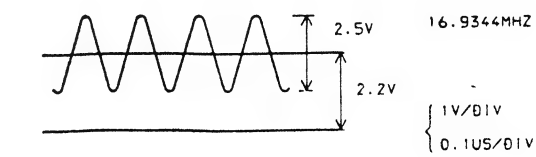
⑦



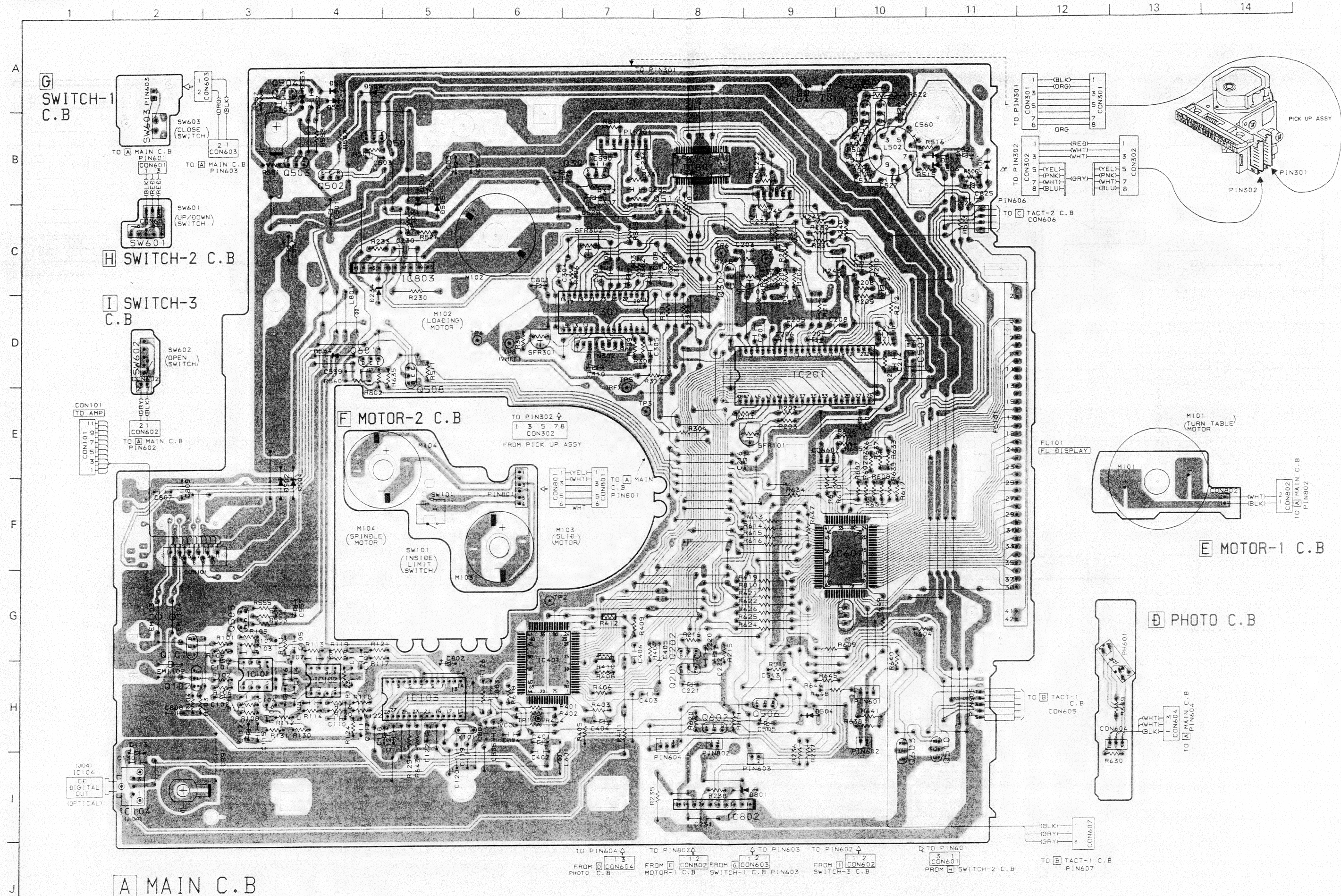
⑧



⑨



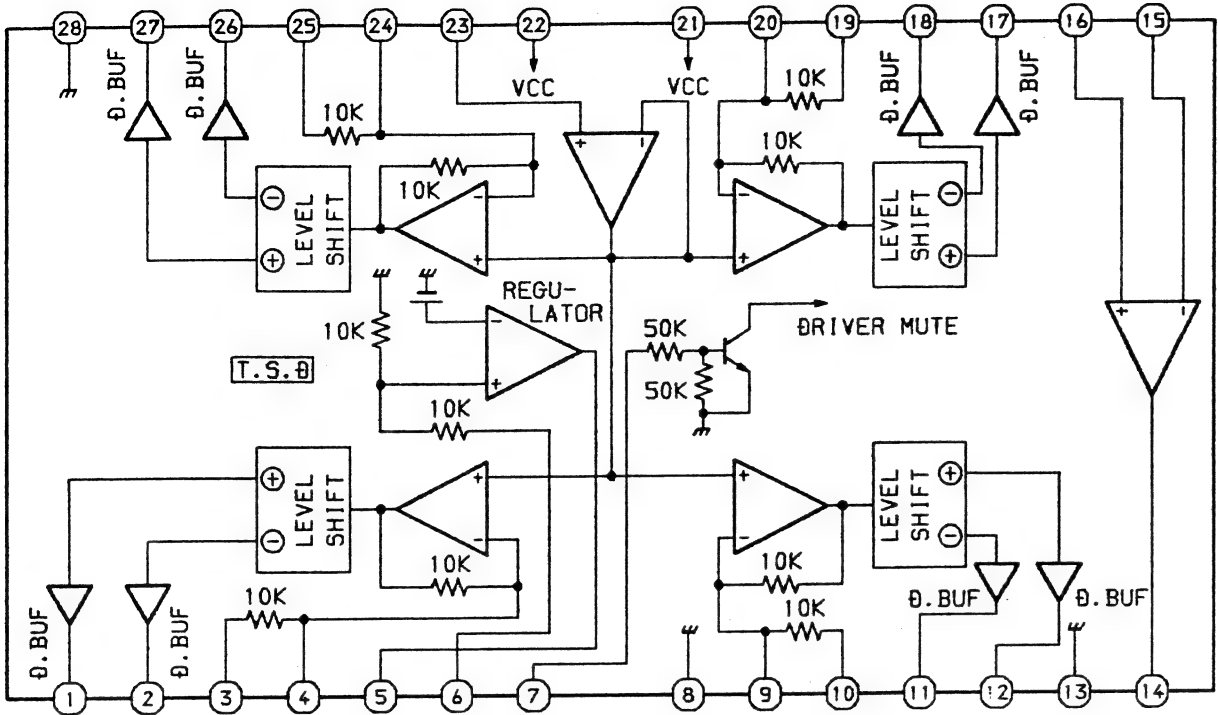






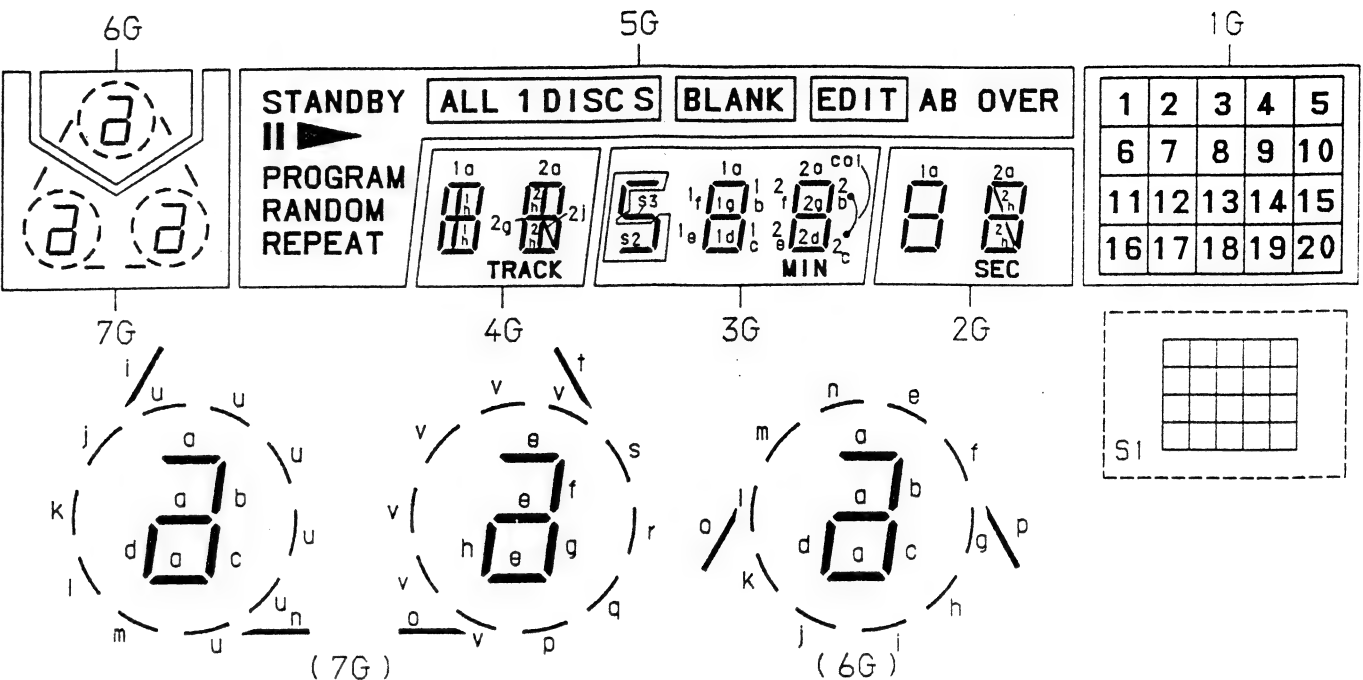
IC BLOCK DIAGRAM

IC,BA6296FP

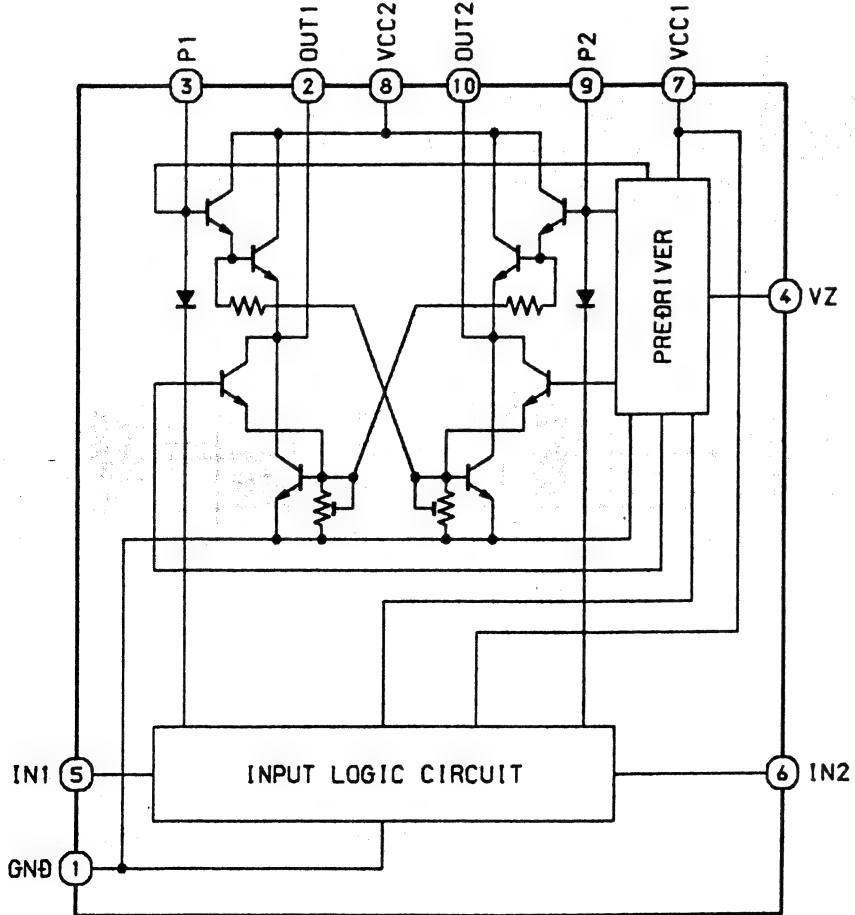


GRID ASSIGNMENT

FL101 7BT - 171GK

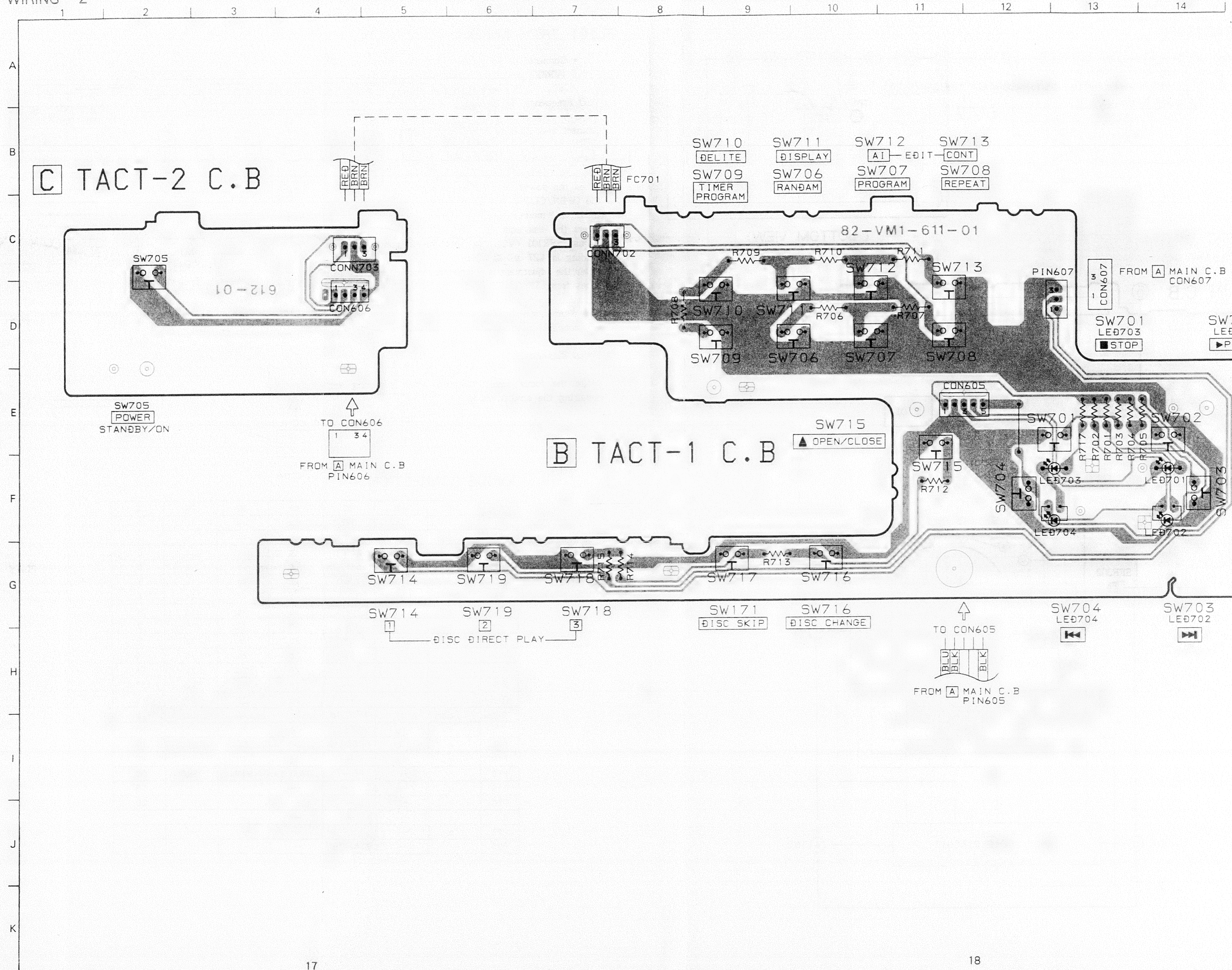


IC,LB1641



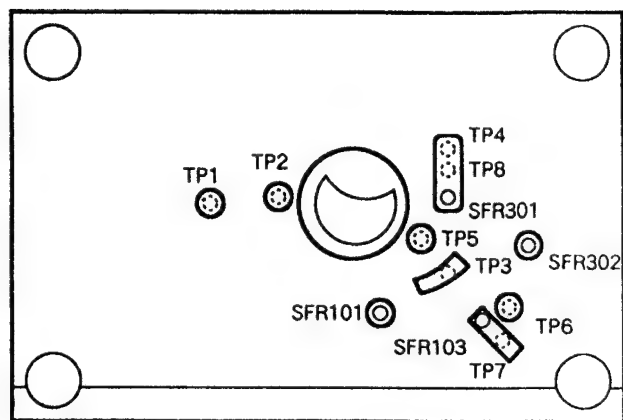
ANODE CONNECTION

	7G	6G	5G	4G	3G	2G	1G
P1	i	o	OVER	1a	1a	1a	1
P2	j	l	B	1b	1b	1b	2
P3	d	d	ALL S	1c	1c	1c	6
P4	b	e	1	1d	1d	1d	8
P5	a	a	DISC	1e	1e	1e	7
P6	l	n	EDIT	1f	1f	1f	4
P7	m	k	BLANK	1g	1g	1g	5
P8	k	m	A	1h	S2	—	3
P9	c	f	▶	2a	2a	2a	9
P10	u	b		2b	2b	2b	10
P11	h	p	—	2c	2c	2c	14
P12	f	—	—	2d	2d	2d	17
P13	t	h	—	2e	2e	2e	16
P14	o	j	RANDOM	2f	2f	2f	12
P15	v	g	REPEAT	2g	2g	2g	13
P16	n	c	PROGRAM	2h	S3	2h	11
P17	e	l	—	2j	(col)	—	15
P18	s	—	—	TRACK	MIN	SEC	18
P19	q	—	—	—	—	—	19
P20	r	—	—	—	—	—	20
P21	q	—	—	—	—	—	S1
P22	p	—	—	—	—	—	—
P23	—	—	STANDBY	—	—	—	—

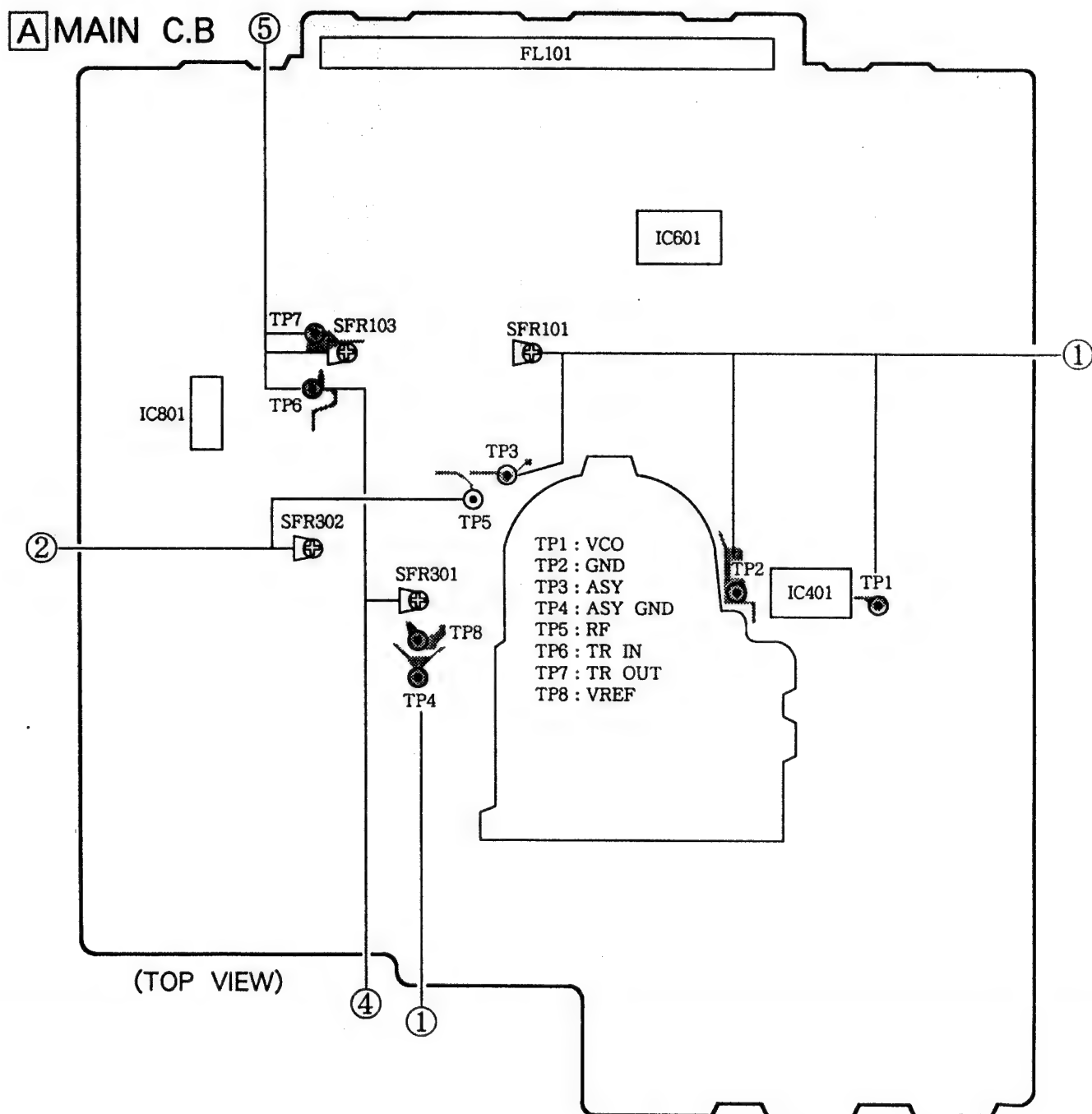


## ADJUSTMENT

The bottom of DX-Z950M has holes corresponding to the test points of the MAIN C.B.



( BOTTOM VIEW )



( TOP VIEW )



- Note :
- Connect a probe (10:1) of the frequency counter or the oscilloscope to a test point.
  - Connect the  $\ominus$  probe of the oscilloscope to TP8 (VREF) for each adjustment.

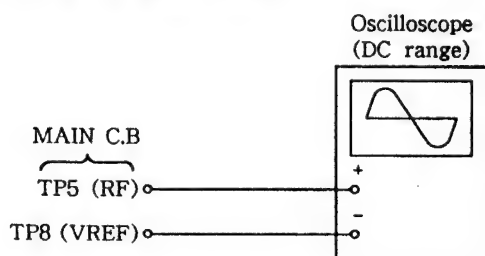
#### ① VCO Frequency Adjustment

1. Connect and short between TP3 (ASY) and TP4 (ASY GND).
2. Connect the frequency counter to test points TP1 (VCO) and TP2 (GND).
3. When the power is off, turn the power on by pressing the OPEN/CLOSE and STOP/CLEAR keys at the same time. (All mode.)
4. Insert the disk and play it.
5. Adjust SFR101 (VCO) so that the frequency counter reading is  $4.27 \pm 0.02$  MHz.
6. After the adjustment is completed, remove the short lead wires from TP3 (ASY) and TP4 (ASY GND).

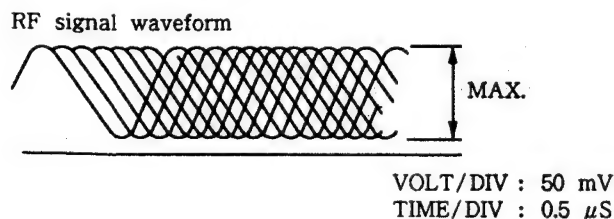
Note : When releasing all lit up, disconnect the FG connector or turn the power off.

#### ② Focus Bias Adjustment

Make the focus bias adjustment when replacing and repairing the optical block.



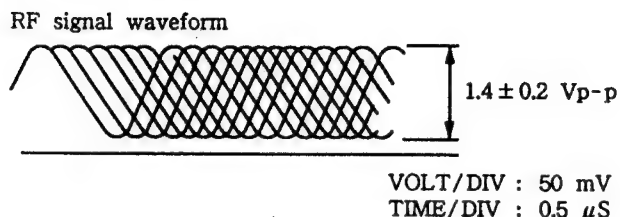
1. Connect an oscilloscope to test points TP5 (RF) and TP8 (VREF).
2. Turn on the power switch.
3. Insert test disc TCD-782 (YEDS-18) and play back the second composition.
4. Adjust SFR302 (F.B) so that the amplitude of waveform on the oscilloscope is maximized.



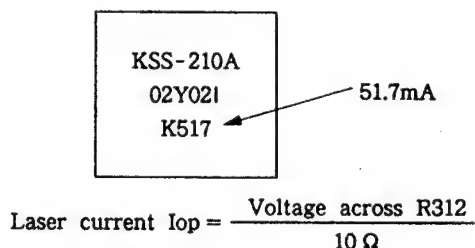
#### ③ RF Waveform Check

This check should be performed whenever the optical system block is replaced in repair.

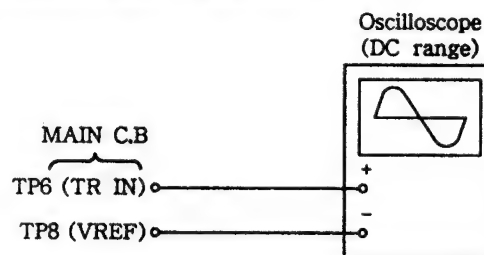
1. Connect an oscilloscope to test points TP5 (RF) and TP8 (VREF).
2. Turn on the power switch.
3. Insert test disc TCD-782 (YEDS-18) and play back the second composition.
4. Check that the waveform appears as shown in the figure below.



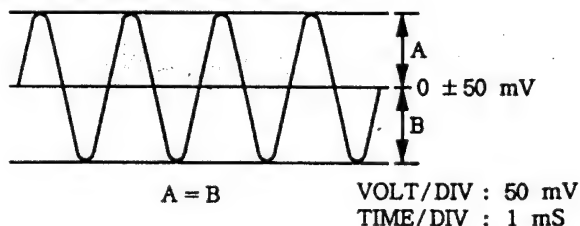
Note : The current of the laser signal can be checked with the voltages on both sides of R312 (10Ω). The difference for the specified value shown on the label must be within  $\pm 6.0$ mA.



#### ④ Tracking Balance Adjustment



1. Set SFR103 (TG) to minimum.
2. Connect an oscilloscope to test points TP6 (TRIN) and TP8 (VREF).
3. Turn on the power switch.
4. Insert test disc TCD-782 (YEDS-18) and press the PLAY (▶) button.
5. Press the FF key repeatedly.
6. Adjust SFR301 (TB) so that the waveform on the oscilloscope is vertically symmetrical as shown in the figure below.
7. After the adjustment is completed, remove the ground lead wires from the terminals.



#### ⑤ Tracking Gain Adjustment

A servo analyzer is necessary in order to perform this adjustment exactly. However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment. Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when 2-axis device operates. However, as these gains are reciprocated, the adjustment is performed so that both gains are satisfied.

- When gain is raised, the noise increases when the 2-axis device operates.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.

When the gain adjustment is not satisfied, the symptoms below appear.

Symptoms \ Gain	(Focus)	Tracking
● The time until music starts becomes longer for STOP→▶PLAY or automatic selection (◀▶ buttons pressed.) (Normally takes about 2 seconds.)	low	low or high
● Music does not start and disc continues to rotate for STOP→▶PLAY or automatic selection (◀▶ buttons pressed.)	—	low
● Disc stops to rotate shortly after STOP→▶PLAY.	low or high	—
● Sound is interrupted during PLAY. Or time counter display stops.	—	low
● More noises during the 2-axis device operation.	high	high

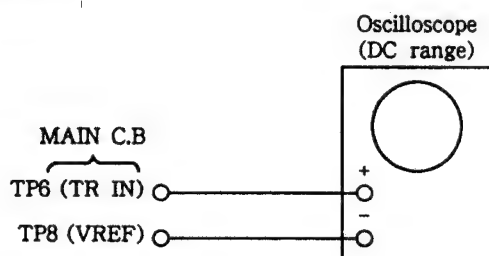
The following is simple adjustment method.

— Simple adjustment —

Note: Since the adjustment cannot be performed exactly, remember the positions of the controls before the adjustment and compare the adjusted position and the original position.

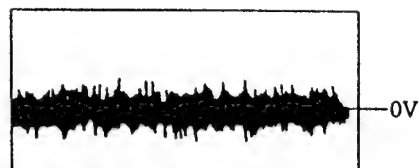
If the difference is a little, return the control to the original position.

Procedure :



1. Keep the set horizontal. (If the set is not kept horizontally, this adjustment cannot be performed due to the gravity against the 2-axis device.)
2. Insert test disc TCD-782 (YEDS-18) and play back the second composition.

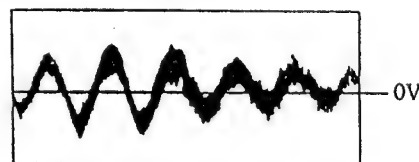
3. Connect an oscilloscope to TP6 (TR IN) of the main board.
4. Adjust SFR103 (TG) so that the waveform appears as shown in the figure below. (tracking gain adjustment)



VOLT/DIV : 50 mV  
TIME/DIV : 1 mS

- Incorrect example (The fundamental wave appears as compared with the waveform adjusted.)

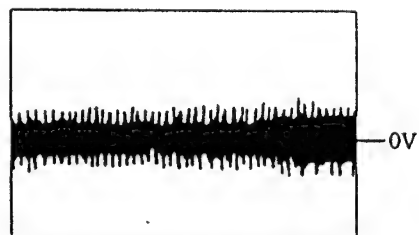
Low tracking gain



VOLT/DIV : 50 mV  
TIME/DIV : 1 mS

High tracking gain

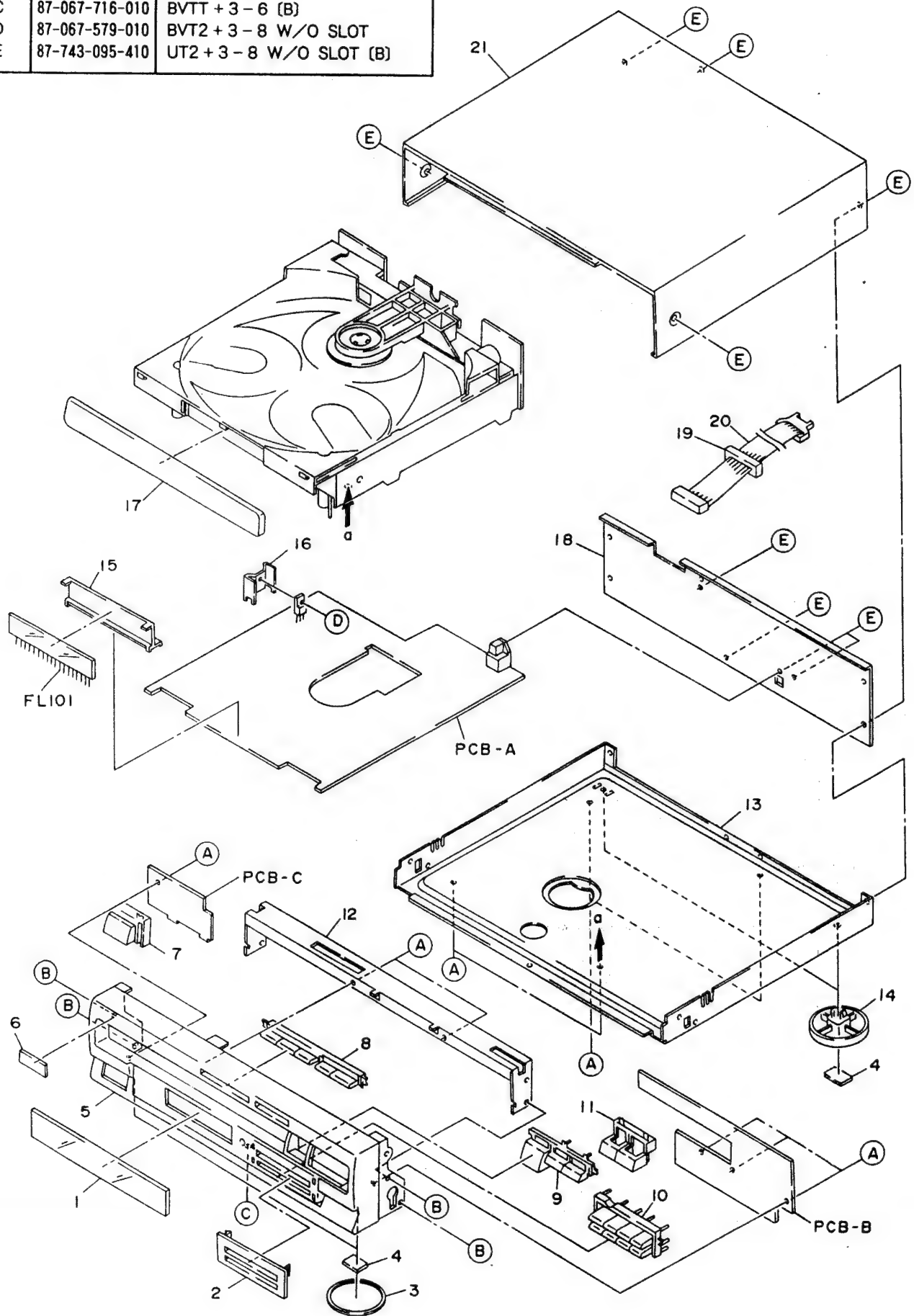
The frequency of the fundamental wave is higher than that in low gain.



VOLT/DIV : 50 mV  
TIME/DIV : 1 mS

# EXPLODED VIEW - 1

REF. NO.	PART NO.	DESCRIPTION
A	87-067-703-010	BVT2 + 3 - 10 W/O SLOT
B	87-591-094-410	QIT + 3 - 6
C	87-067-716-010	BVTT + 3 - 6 (B)
D	87-067-579-010	BVT2 + 3 - 8 W/O SLOT
E	87-743-095-410	UT2 + 3 - 8 W/O SLOT (B)

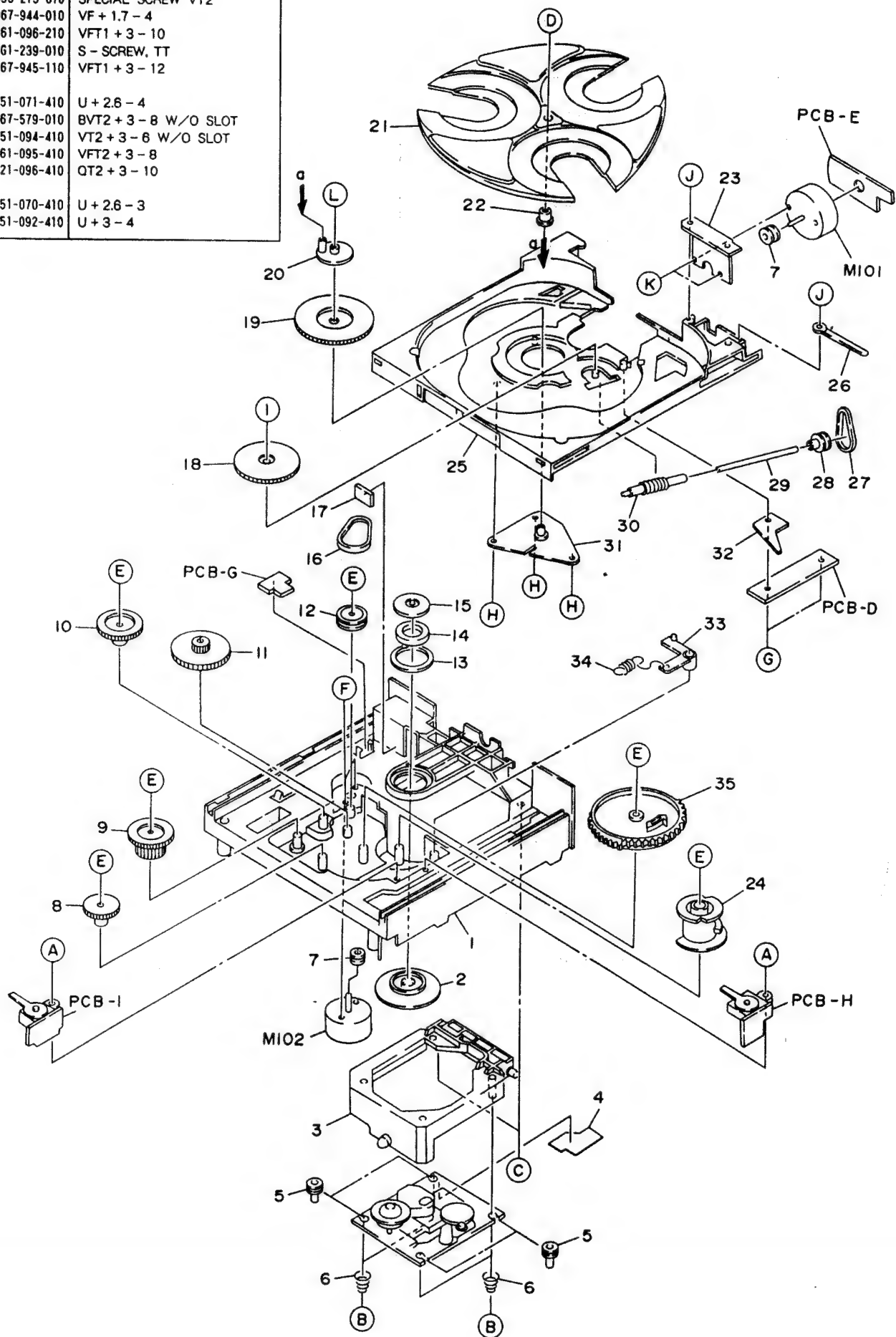


# MECHANICAL PARTS LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	1-1	★82-VM1-011-010	WINDOW	※	1
	1-2	★82-VM1-012-010	PANEL, PROGRAM	※	1
	1-3	★81-VM1-015-010	RING, FOOT		2
	1-4	★81-VM1-201-010	FELT 20 - 15 - 2		4
	1-5	★82-VM1-001-010	CABINET, FRONT	※	1
	1-6	★81-DS1-011-019	BADGE, AIWA		1
	1-7	★82-VM1-007-010	KEY, POWER	※	1
	1-8	★82-VM1-006-010	KEY, DISC	※	1
	1-9	★82-VM1-005-010	KEY, SEARCH	※	1
	1-10	★82-VM1-008-010	KEY, PROGRAM	※	1
	1-11	★82-VM1-004-010	KEY, PLAY	※	1
	1-12	---	CHASSIS, FRONT		1
	1-13	---	CHASSIS, MAIN		1
	1-14	★81-VX1-012-019	FOOT, REAR		2
	1-15	★81-VM1-203-010	GUIDE, FL		1
	1-16	---	HEAT SINK		1
	1-17	★82-VM1-010-010	PANEL, TRAY	※	1
	1-18	★82-VM1-009-010	PANEL, REAR (Y)	※	1
	1-18	★82-VM1-015-110	PANEL, REAR (YNE)	※	1
	1-19	★89-VT5-202-010	BUSHING, CORD		1
	1-20	★89-VX5-618-010	FLAT CABLE 11P FG		1
	1-21	★82-VM1-002-010	CABINET, STEEL (Y)	※	1
	1-21	★82-VM1-021-018	CABINET, STEEL (YNE)	※	1

EXPLODED VIEW - 2

REF. NO.	PART NO.	DESCRIPTION
A	81-653-215-010	SPECIAL SCREW VT2
B	87-067-944-010	VF + 1.7 - 4
C	87-561-096-210	VFT1 + 3 - 10
D	81-Z61-239-010	S - SCREW, TT
E	87-067-945-110	VFT1 + 3 - 12
F	87-251-071-410	U + 2.6 - 4
G	87-067-579-010	BVT2 + 3 - 8 W/O SLOT
H	87-751-094-410	VT2 + 3 - 6 W/O SLOT
I	87-761-095-410	VFT2 + 3 - 8
J	87-721-096-410	QT2 + 3 - 10
K	87-251-070-410	U + 2.6 - 3
L	87-251-092-410	U + 3 - 4

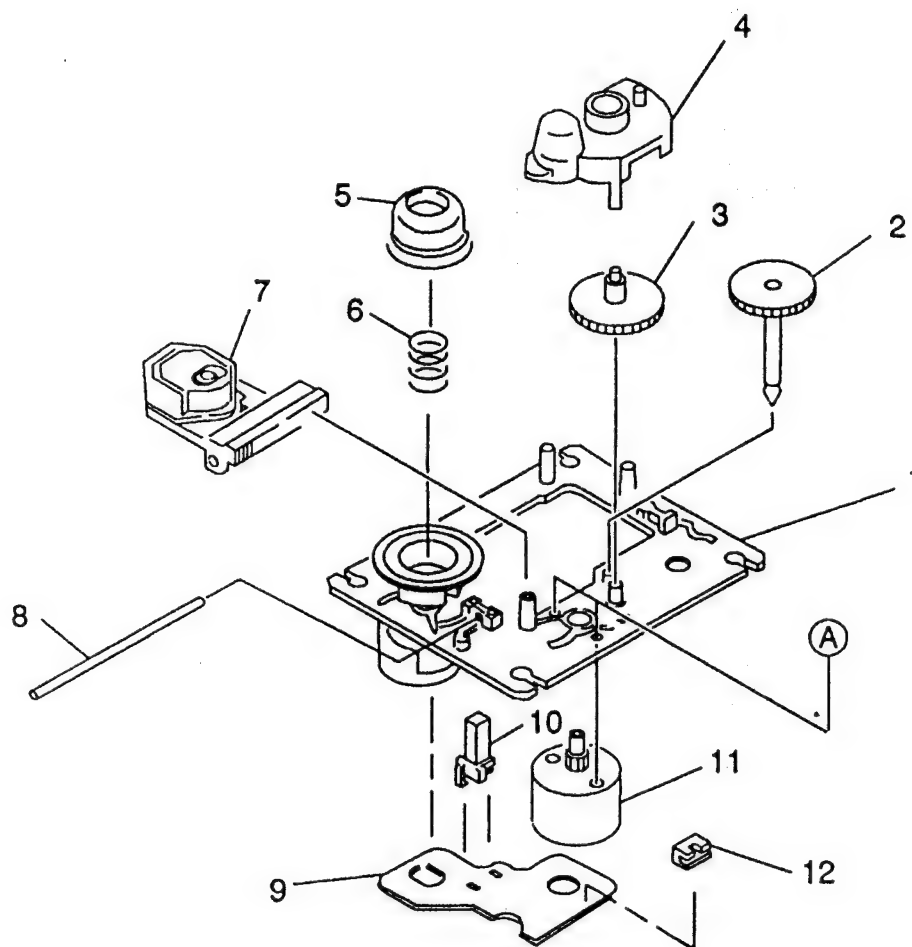




PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	2-1	★81-ZG1-201-010	CHASSIS, MECHANISM		1
	2-2	★81-ZG1-228-010	HOLDER, MAGNET		1
	2-3	★81-ZG1-226-010	MECHANISM HOLDER ASSY		1
	2-4	★81-ZG1-241-010	SHEET, CD MECHANISM		1
	2-5	★81-ZG1-230-010	G - CUSHION, MECHANISM		4
	2-6	★81-ZG1-231-010	C - SPRING, MECHANISM		4
	2-7	★81-ZG1-212-010	PULLEY, LOADING MOTOR		2
	2-8	★81-ZG1-209-010	GEAR, TRAY RELAY		1
	2-9	★81-ZG1-208-010	GEAR, TRAY B		1
	2-10	★81-ZG1-207-010	GEAR, TRAY A		1
	2-11	★81-ZG1-210-010	GEAR, RELAY		1
	2-12	★81-ZG1-211-010	PULLEY, RELAY		1
	2-13	★81-ZG1-242-010	SHEET, MAGNET		1
	2-14	★86-531-219-010	MAGNET, CLAMPER		1
	2-15	★81-ZG1-229-010	PLATE, MAGNET		1
	2-16	★81-ZG1-232-010	BELT, TRAY		1
	2-17	★81-ZG1-238-010	CUSHION, TRAY IN		1
	2-18	★81-ZG1-222-010	WORM WHEEL, TT		1
	2-19	★81-ZG1-202-010	GEAR, MAIN		1
	2-20	★81-ZG1-224-010	TT LEVER ASSY		1
	2-21	★81-ZG1-002-010	TURNTABLE		1
	2-22	★81-ZG1-219-010	SHAFT, TRAY		1
	2-23	★81-ZG1-215-010	HOLDER, MOTOR		1
	2-24	★81-ZG1-206-010	GEAR, MECHANISM CAM		1
	2-25	★81-ZG1-001-010	TRAY		1
	2-26	---	BINDER, WIRE		1
	2-27	★81-ZG1-233-110	BELT, TT		1
	2-28	★81-ZG1-236-010	PULLEY, TT MOTOR		1
	2-29	★81-ZG1-216-010	SHAFT, WORM		1
	2-30	★81-ZG1-221-010	WORM GEAR, TT		1
	2-31	★81-ZG1-225-010	TRAY PLATE ASSY		1
	2-32	★81-ZG1-240-010	P - SPRING, WORM		1
	2-33	★81-ZG1-213-010	PLATE, CAM		1
	2-34	★81-ZG1-235-010	E - SPRING, CAM		1
	2-35	★81-ZG1-205-110	GEAR, TRAY CAM		1

# EXPLODED VIEW - 3

REF. NO	PART NO.	DESCRIPTION
A	87-261-032-210	V+ 2-3



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
3-1		★9X-262-513-310	TT CHASSIS ASSY (W/MOTOR)		1
3-2		★92-625-188-020	GEAR, A		1
3-3		- - -	GEAR, B		1
3-4		★92-625-544-010	COVER		1
3-5		92-625-187-010	RING, CENTER		1
3-6		★92-625-191-010	SPRING, COMPRESSION		1
3-7		98-848-127-110	PICK UP KSS - 210A		1
3-8		★94-917-565-010	SHAFT, SLED		1
3-9		- - -	MOTOR PWB		1
3-10		91-572-085-110	SWITCH, LEAF (LIMIT)		1
3-11		★9X-262-513-210	SLED MOTOR ASSY		1
3-12		★91-564-722-110	CONNECTOR 6P		1

## PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

### WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion.  
Undgå udsættelse for stråling.

### VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

### WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstråling, som överskrider gränsen för laserklass 1.

### CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

### ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

This Compact Disc player is classified as a CLASS 1 LASER product.

The CLASS 1 LASER PRODUCT label is located on the rear exterior.

CLASS 1  
LASER PRODUCT

LUOKAN 1  
LASERLAITE

KLASS 1  
LASER APPARAT

## SPECIFICATIONS

Disc	Compact disc
Scanning method	Non-contact optical scanner (semiconductor laser application)
Laser	Semiconductor laser ( $\lambda = 750-800 \text{ nm}$ )
Rotation speed	Approx. 500 rpm – 200 rpm (CLV)
Error correction	Cross Interleave, Reed Solomon code
No. of channels	2 channels
D-A conversion	1-bit DAC
Wow/Flutter	Unmeasurable
Signal to noise ratio	92 dB (1 kHz, 0 dB)
Harmonic distortion	0.01% (1 kHz, 0 dB)
Low pass filter	8 times digital filter + active filter
Power consumption	15 W
Dimensions (W×H×D)	360 × 98.5 × 308 mm (14 1/4 × 4 × 12 1/4 in)
Weight	3.8 kg (8.4 lb)

- Design and specifications are subject to change without notice.

## ALTERLATION PARTS LIST

REF. NO. PART NO. DESCRIPTION

===IC===

82-VM1-601-110 IC, CXP50120-1590

## ■ ACCESSORIES/PACKAGE LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q.TY
	1	★82-VM1-901-218	IB (Y NE)		1
	2	★82-VM1-902-110	IB (Y)		1
	3	★82-VM1-903-119	IB (YJ)		1
	4	★82-VM1-905-018	IB (Z7000M)		1

## DISSASSEMBLY INSTRUCTIONS

- "Cabinet, Steel" Removal (See Figure-1)
  - Remove 5 screws (A) and remove "Cabinet, Steel".
- "Cabinet, Front" Removal (See Figure-1)
  - Remove 5 screws (B × 4, C × 1) and remove the "Cabinet, Front".
- "Panel, Rear" Removal (See Figure-1)
  - Remove 4 screws (D) and remove the "Panel, Rear".
- "Mechanism ASSY" Removal (See Figure-2)
  - Remove 5 screws (A) and remove the "Mechanism ASSY".

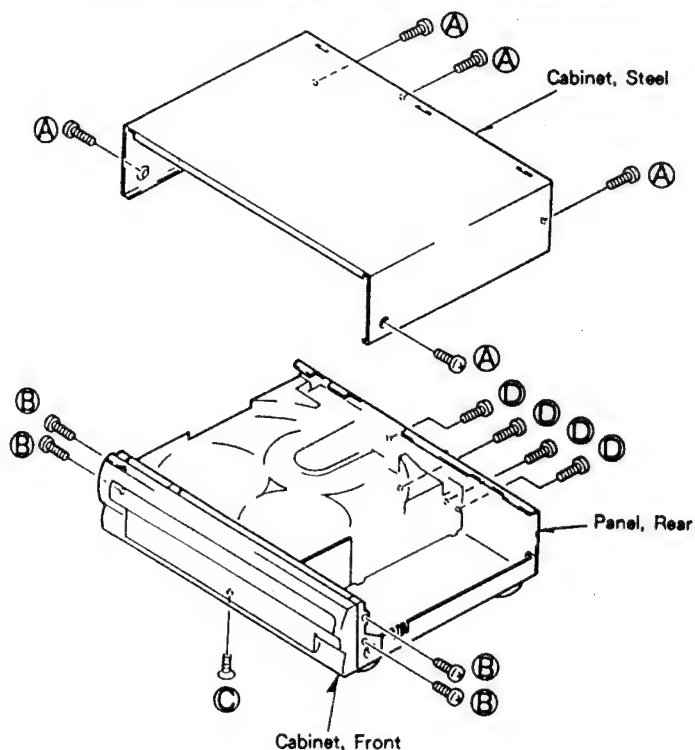


Fig - 1

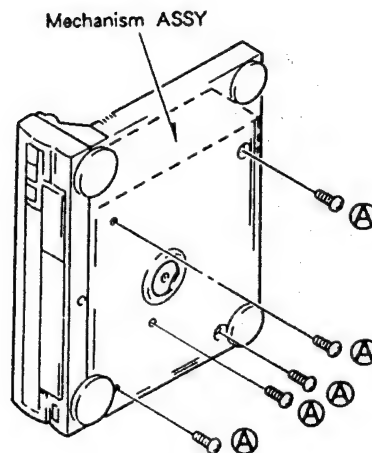


Fig - 2

5. "Main Circuit Board" Removal (See Figure - 3)

- 1) Remove 6 hooks unsolder the soldered points and raise the "Main Circuit Board".
- 2) Remove 8 connectors and remove the "Main Circuit Board" in the direction of the arrow.

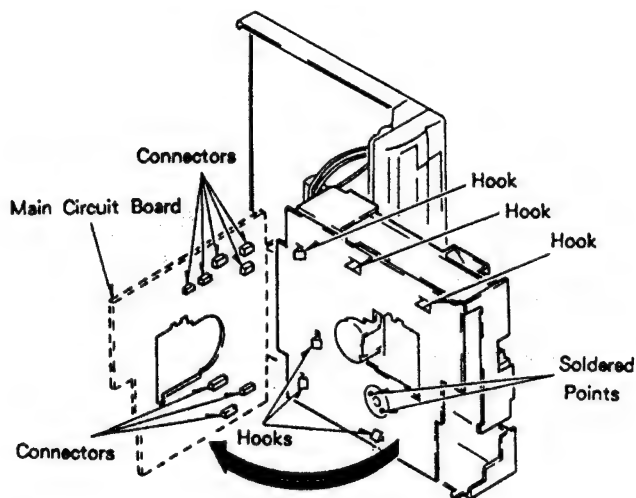


Fig - 3

6. "Tray" Removal (See Figure - 4)

- 1) Open the "Tray".
  - ★ To open manually  
Turn gear in the direction of arrow ① with your fingers.
  - ★ To open automatically  
Connect the power supply to the loading motor and open the "Tray".
- 2) While pushing the hook in the direction of the arrow ② as shown in the figure, remove the "Tray" in the direction of arrow ③.
- 3) Remove screw (A) and remove the "Turntable".

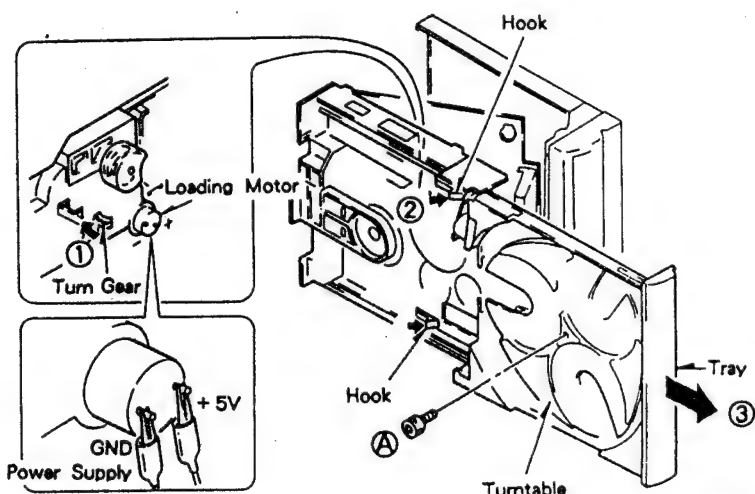


Fig - 4

7. "Tray" and Each Gear Setting (See Figure - 5)

- 1) Align the "Cam, Gear Mechanism" and "Cam, Plate" as shown in the figure.
- 2) Adjust SW so that it comes to position ④ when performing.
- 3) Attach "Cam, Gear Tray" so that mark ⑤ is positioned as shown in the figure.
- 4) Insert "Tray" so that the aligning mark of "Tray A, Gear" is opposite the first tooth of "Rack, Tray".

Note) If SW is at position ④ (when "Tray" is open.), reset the cams so that SW comes to position ④.

If SW is not positioned correctly, "Tray" and chucking do not work well.

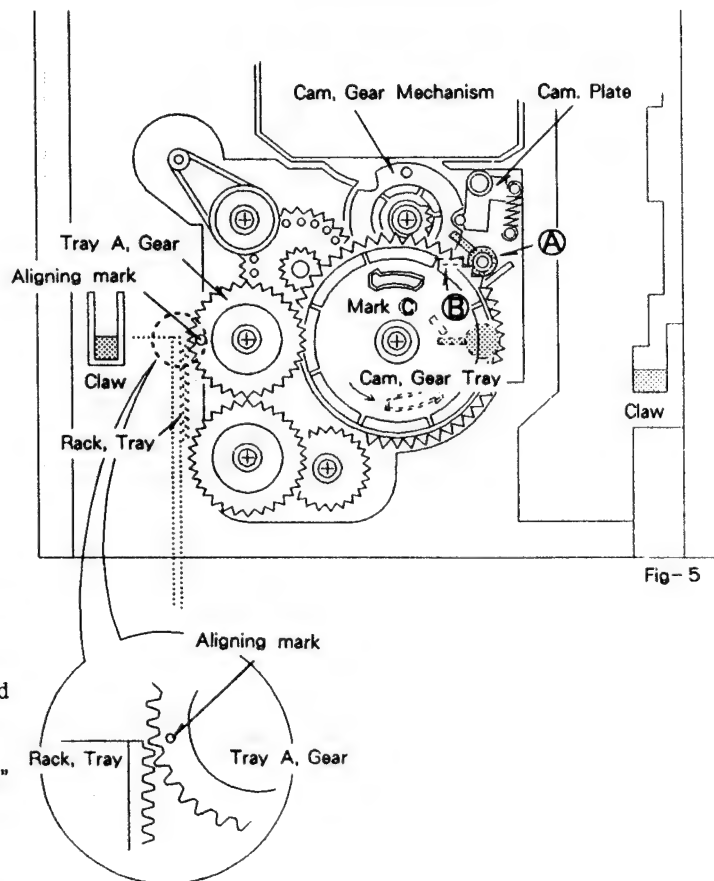
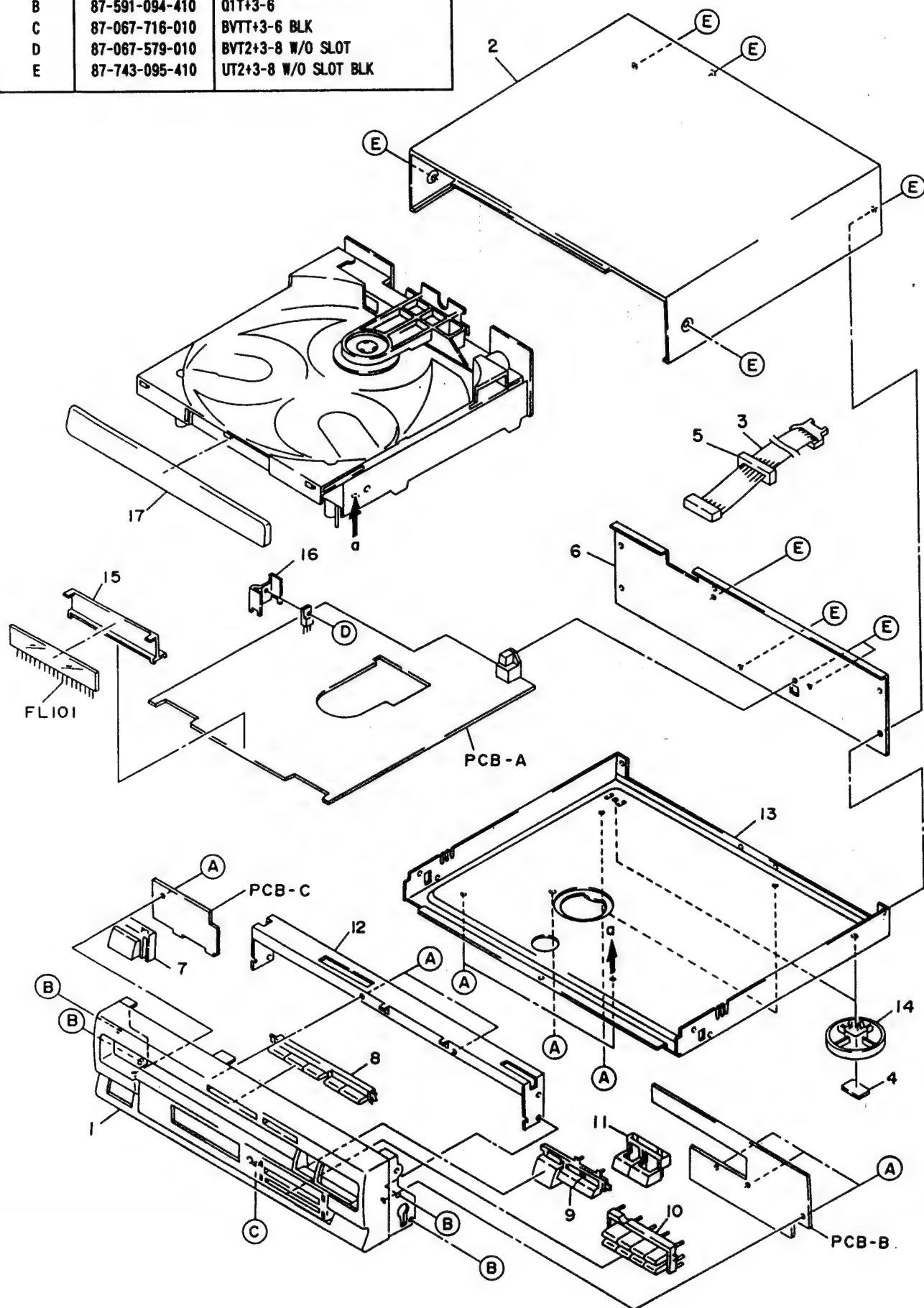


Fig - 5

# EXPLODED VIEW - 1

REF. NO.	PART NO.	DESCRIPTION
A	87-067-703-010	BVT2+3-10 W/O SLOT
B	87-591-094-410	Q1T+3-6
C	87-067-716-010	BVTT+3-6 BLK
D	87-067-579-010	BVT2+3-8 W/O SLOT
E	87-743-095-410	UT2+3-8 W/O SLOT BLK



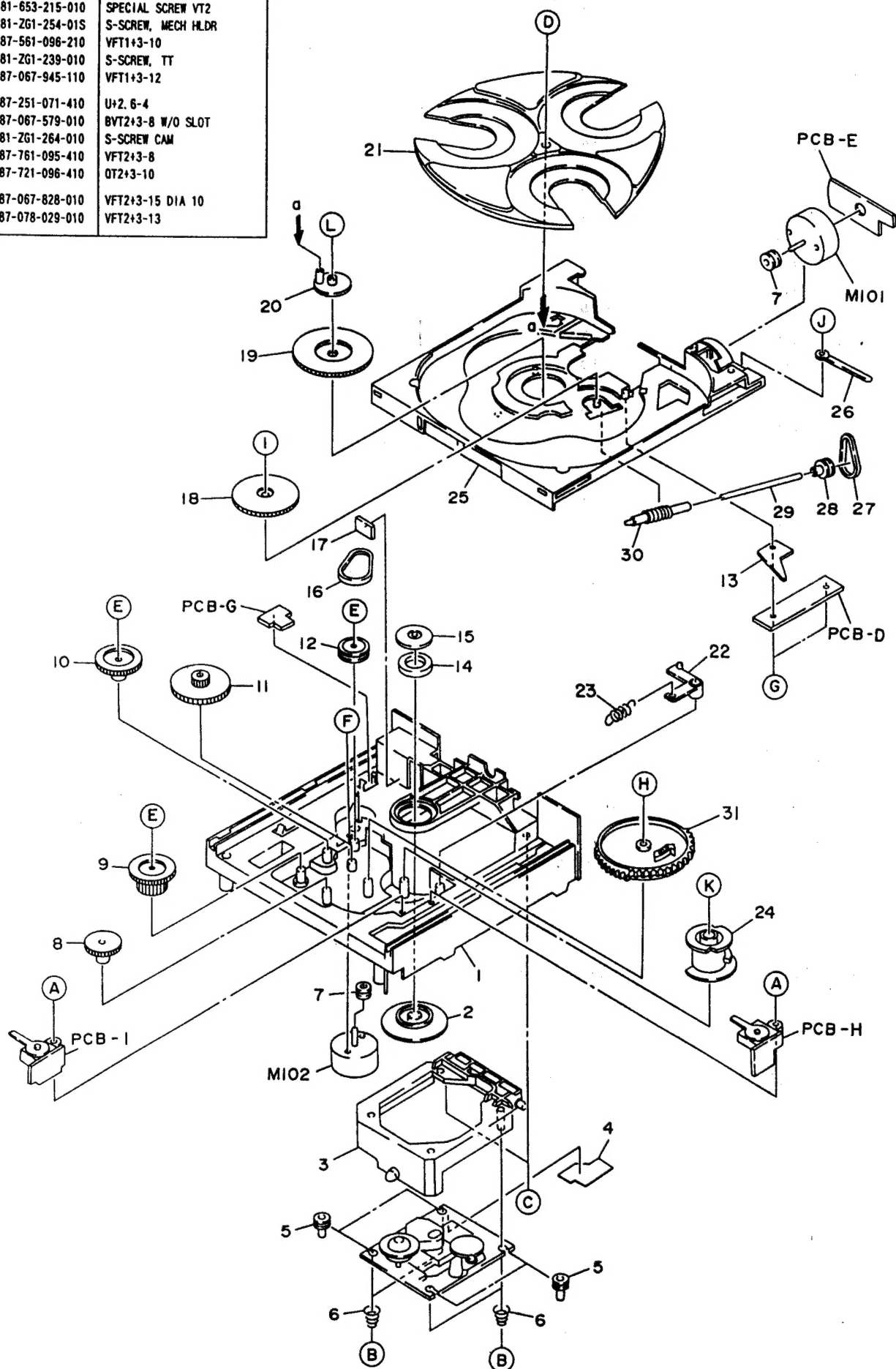
# MECHANICAL PARTS LIST

DESCRIPTIONで判断できない物は最終ページの "REFERENCE NAME LIST" を参照してください。  
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q.TY
	1-1	★09-057-175-010	CAB, FRONT ASSY (Z950M YJ)	※	1
	1-1	★09-057-185-010	CAB, FRONT ASSY (Z7000M)	※	1
	1-2	★82-VM1-002-010	CAB, STEEL (Z950M YJ)	※	1
	1-2	★82-VM1-021-018	CAB, STEEL (Z7000M)	※	1
	1-3	★89-VX5-618-010	FLAT CABLE 11P FG		1
	1-4	★81-VW1-201-010	FELT 20-15-2		2
	1-5	★89-VT5-202-010	BUSHING, CORD		1
	1-6	★82-VM1-013-219	PANEL, REAR YJBN (Z950M YJ)	※	1
	1-6	★82-VM1-027-019	PANEL, REAR YBNE (Z7000M)	※	1
	1-7	★82-VM1-007-010	KEY, POWER	※	1
	1-8	★82-VM1-006-010	KEY, DISC	※	1
	1-9	★82-VM1-005-010	KEY, SEARCH	※	1
	1-10	★82-VM1-008-010	KEY, PRGM	※	1
	1-11	★82-VM1-004-010	KEY, PLAY	※	1
	1-12	---	CHAS, FR		1
	1-13	---	CHAS, MAIN		1
	1-14	★81-VX1-012-019	FOOT, REAR		2
	1-15	★81-VM1-203-010	GUIDE, FL		1
	1-16	---	HT - SINK		1
	1-17	★82-VM1-010-010	PANEL, TRAY	※	1

# EXPLODED VIEW - 2

REF.	PART NO.	DESCRIPTION
A	81-653-215-010	SPECIAL SCREW VT2
B	81-Z61-254-01S	S-SCREW, MECH HLDR
C	87-561-096-210	VFT1+3-10
D	81-Z61-239-010	S-SCREW, TT
E	87-067-945-110	VFT1+3-12
F	87-251-071-410	U+2, 6-4
G	87-067-579-010	BVT2+3-8 W/O SLOT
H	81-Z61-264-010	S-SCREW CAM
I	87-761-095-410	VFT2+3-8
J	87-721-096-410	OT2+3-10
K	87-067-828-010	VFT2+3-15 DIA 10
L	87-078-029-010	VFT2+3-13

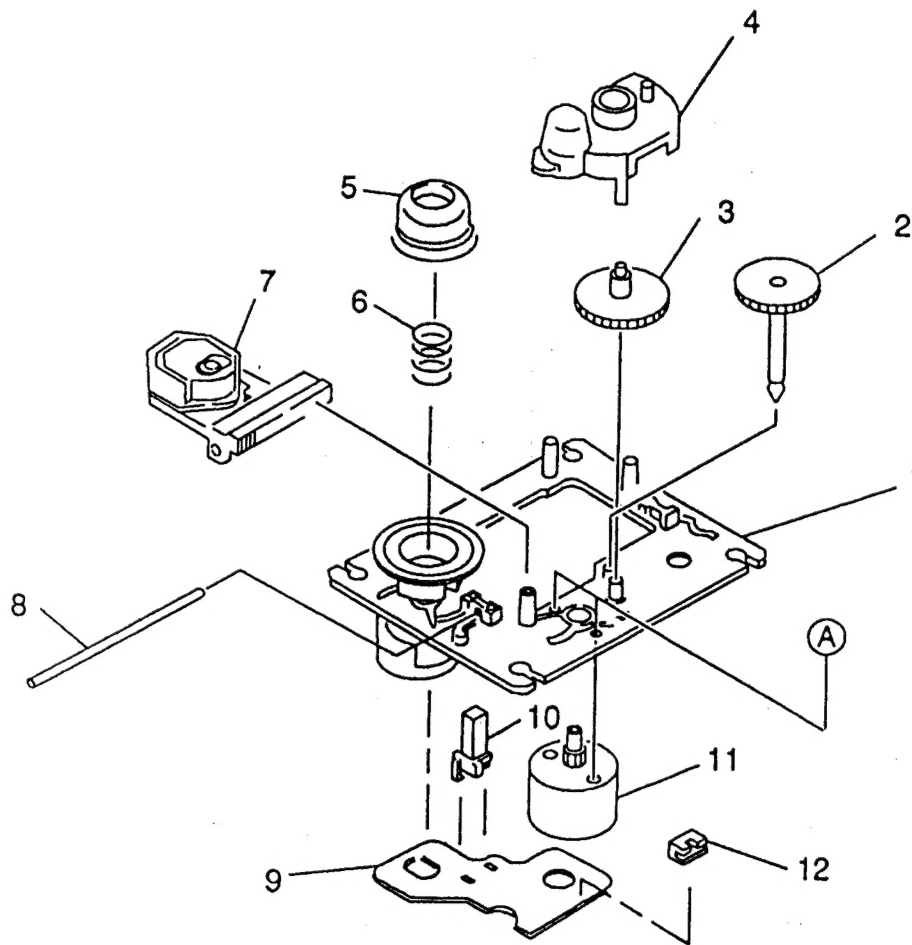




PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q.TY
	2-1	★81-ZG1-243-119	CHAS, MECH NO2		1
	2-2	★81-ZG1-228-010	HLDR, MAGNET		1
	2-3	★81-ZG1-253-01S	HLDR MECH MK2		1
	2-4	★81-ZG1-241-010	SH, CD MECH		1
	2-5	★81-ZG1-230-010	G - CUSH, MECH		4
	2-6	★81-ZG1-231-010	SPR - C, MECH		4
	2-7	★81-ZG1-212-010	PULLY, LOAD MO		2
	2-8	★81-ZG1-250-019	GEAR, TRAY RELAY MK2		1
	2-9	★81-ZG1-257-019	GEAR, TRAY B MK2		1
	2-10	★81-ZG1-256-019	GEAR, TRAY A MK2		1
	2-11	★81-ZG1-251-019	GEAR, RELAY MK2		1
	2-12	★81-ZG1-211-010	PULLEY, RELAY		1
	2-13	★81-ZG1-240-010	SPR - P, WORM		1
	2-14	★86-531-219-010	MAGNET, CLAMPER		1
	2-15	★81-ZG1-255-01S	PLATE, MAGNET MK2		1
	2-16	★81-ZG1-232-010	BELT, TRAY		1
	2-17	★81-ZG1-238-010	CUSH, TRAY IN		1
	2-18	★81-ZG1-222-010	WORM WHEEL, TT		1
	2-19	★81-ZG1-202-010	GEAR, MAIN		1
	2-20	★81-ZG1-252-010	LEVER, TT MK2		1
	2-21	★81-ZG1-008-119	TURNTABLE, NO2		1
	2-22	★81-ZG1-213-010	PLATE, CAM		1
	2-23	★81-ZG1-235-010	SPR - E CAM		1
	2-24	★81-ZG1-206-010	GEAR, MECH CAM		1
	2-25	★81-ZG1-011-019	TRAY, MK2		1
	2-26	★87-038-039-010	WIRE BINDER		1
	2-27	★81-ZG1-233-110	BELT, TT		1
	2-28	★81-ZG1-236-010	PULLEY, TT MO		1
	2-29	★81-ZG1-260-019	SHAFT, WORM S		1
	2-30	★81-ZG1-221-010	WORM GEAR, TT		1
	2-31	★81-ZG1-205-110	GEAR, TRAY CAM		1

## EXPLODED VIEW - 3

REF. NO.	PART NO.	DESCRIPTION
A	87-261-032-210	V+2-3



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q.TY
	3-1	★9X-262-513-310	TT CHASSIS ASSY (W/MOTOR)		1
	3-2	★92-625-188-020	GEAR, A		1
	3-3	---	GEAR, B		1
	3-4	★92-625-544-010	COVER		1
	3-5	92-625-187-010	RING, CENTER		1
	3-6	★92-625-191-010	SPRING, COMPRESSION		1
	3-7	98-848-127-110	PICK UP KSS - 210A		1
	3-8	★94-917-565-010	SHAFT, SLED		1
	3-9	---	MOTOR PWB		1
	3-10	91-572-085-110	SWITCH, LEAF (LIMIT)		1
	3-11	★9X-262-513-210	SLED MOTOR ASSY		1
	3-12	★91-564-722-110	CONNECTOR 6P		1